DR. CARR ON CONSUMPTION.

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CARR, D.

CONSUMPTION OF THE LUNGS AND ASTHMA,

ARRESTED AND CURED BY INHALATION, &c.

CONSUMPTION OF THE LUNGS AND ASTHMA,

ARRESTED AND CURED,

IN THE MAJORITY OF CASES,

BY INHALATION,

AND OTHER RATIONAL MEANS;

CONTAINING

ALL THE REMEDIES AND PLANS THAT ARE NECESSARY IN EVERY STAGE OF THOSE DISEASES. ALSO, THE MEANS OF CURING INFLUENZA, COUGH, BRONCHITIS, SORE-THROAT, HOARSENESS, INFLAMMATION OF THE LUNGS, ETC.

BY DANIEL CARR, M.D.,

AUTHOR OF "ADVICE ON THE DISEASES OF THE STOMACH, LIVER, ETC., ARISING FROM INDIGESTION."

"Prejudices and partialities against truth may for a time prevail and keep her at the bottom of her well, from whence nevertheless she emerges sooner or later, and strikes the eyes of all who do not keep them shut."

BISHOP BERKELEY.

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PREFACE.

THE following Treatise aims at being purely practical, and contains only so much of physiological explanation as is necessary to a general knowledge of the complaint. Many of the medicines that are given are from the writings of eminent practitioners, with some alterations that have rendered them more efficacious; others are the result of the author's own practice, for he has stated nothing but what he has proved to be beneficial by its success in oft-repeated trials.

The peculiar feature of this book is the full information which it gives on the subject of Inhalation; for in no other treatise in existence can there be fouud such particular and minute directions for the proper management of this important mode of treatment; and herein the author pretends to no discovery of his own, his only merit being that of giving greater publicity to a system which has been in partial operation for many years past. Experience of its truly wonderful powers has so fully convinced him of its capability to cure the disease, even in many apparently hopeless cases, that he has been anxious to omit

nothing that could explain its principles, or aid towards its general adoption. Nothing can hold out the sure prospect of a cure but inhalation, and if this is neglected, the patients will, in ninety-nine cases out of a hundred, sink, in spite of every other remedy that can be devised.

Consumption of the lungs is really a subject of national consideration; for it is a fact, that the number of deaths arising from this cause is now greater than ever, and is still daily on the increase throughout England. We may see patients on every side, and in almost every family, gradually pining away and sinking into the grave, in spite of all that can be done for them by the common routine of practice, even under the most skilful and attentive hands; for the fault is not in the ability of the physician or surgeon, but in the established mode of treatment: but the author is confident, from very extended experience, that many of them might be saved, if the system of inhalation were regularly and vigorously pursued.

As the press offers the only efficient means of disseminating information, the author has determined to have recourse to it in spreading a more extensive knowledge of this mode of treatment than at present exists, and in so doing he is well aware that opposition must be expected, although he is following in the steps of the highest medical authority. Such is the privilege which all plans

that are contrary to long established customs are sure to enjoy. It may correctly be termed a *privilege*, as this is the very circumstance which proves so beneficial in the end; for wherever opposition is made, a spirit of inquiry is excited, and if the system sought to be introduced or extended rests upon the firm basis of reason and practical utility, a successful issue may confidently be predicted. The author, therefore, feels sanguine that at no very distant period the plan of inhalation for pulmonary complaints will, through its own merits, be able to overcome the prejudices that may assail it, and be recognised as the most rational of any hitherto recommended.

It is a fortunate circumstance that the system of inhalation does not interfere or clash with any plan of internal treatment; for the homœopathic, chrono-thermal, or any other of the present day, may be put in practice according to the views of the practitioner under whose care the patient may happen to be, and inhalation adopted at the same time. It may here also be observed, that even with the hydropathic method, or water cure, which forbids the swallowing of all drugs, the inhaling process is strictly compatible, and the only one that is so; for by this means medicated vapours are merely received into the lungs, and no drugs into the stomach. This is an agreement between the two modes which is at present

overlooked by the hydropathists, but which, if fairly considered, might reconcile them to its adoption; and it is only in diseases of the respiratory organs that the hydropathic plan can consistently admit of compromise with any other system—with inhalation it may certainly be advantageously combined.

Asthma, and long-standing habitual coughs, which tear the patient, as it were, to pieces, and render life a misery, are subdued much more quickly by inhalation than by any other plan. Comfort and ease are made to take the place of difficult breathing, and that sense of suffocation in the chest which is so distressing. Every medicine of real utility for these complaints will be found in the latter part of the work.

"All the professions exist primarily for the public," and the author can conscientiously declare, that if, by directing the attention of that public to an effectual mode of treating these lamentable diseases, he shall be instrumental in lessening the sum of human misery, his reward will be gratifying and ample.

33, Great Charles-street, Birmingham,
June, 1847.

MISCELLANEOUS OBSERVATIONS.

THE last stage of Consumption is certainly incurable, and the man who would dare assert the contrary might justly be suspected of dishonest motives, or of the grossest ignorance; but if we suppose the disease divided into three stages, I feel a confidence in asserting that two out of the three are as easily cured as any other complaint. This is not theory, but the sober and deliberate result of long experience, ardently devoted to a consideration of this destructive malady, and a minute investigation of all its symptoms and morbid characters, backed up by a successful treatment of the most critical cases, on the principles shortly to be mentioned. Many cases have come under my notice which had all the appearance of being irrecoverable, and which had, in fact, been pronounced as confirmed Consumption; but they were rapidly subdued by the adoption of efficient means, so that every symptom of pulmonary disease and irritation soon ceased, and sound health was again enjoyed. Now, in these cases, the substance itself of the lungs could not be very extensively injured, although in appearance the

Patients were in a hopeless condition, and they show very forcibly the insidious nature of the disease, which requires the most careful consideration before we can pronounce with certainty on our hopes of success; at the same time, they give the greatest encouragement, both to the practitioner and the invalid, to persevere in their endeavours, for although in such instances every symptom may wear a gloomy aspect, yet the most happy termination may reward our treatment when directed with judgment and discrimination. If, however, the substance of the lungs has undergone deep and widely spread ulcerations, it is manifest that the healing art is unable to stem the torrent which is about to burst the flood-gates of life, and bring on the final catastrophe; but if it can be ascertained, with some degree of probability, that the disease has not made great inroads upon the pulmonary tissue, there is no reason to fear but a complete cure may be effected. It is on account of the vast numbers that die annually of this fearful scourge, notwithstanding the means that are usually employed to avert it, that the disease in all its stages has been regarded as incurable; but before this conclusion is drawn, we ought to satisfy ourselves whether or not every thing has been done in the general treatment which the resources of medicine can accomplish; and I am of opinion, if the inquiry were rigidly instituted, that we should find strong reason to doubt on that point. Although the science of

medicine is not, and never will be, reduced to mathematical certainty, yet it has almost, when joined with a proper mode of regimen, unlimited power; and I would encourage consumptive patients to hope, that the means of arresting the progress of this direful disease are, in the majority of cases, within the reach of human art. The discoveries of modern chemistry have provided the medical world with a host of powerful remedies which were totally unknown forty or fifty years ago, and which enable the practitioner of the present day to oppose even this terrible scourge with almost a certainty of success. It is therefore strange, that in the middle of the nineteenth century, when chemical science has made such brilliant discoveries, and furnished us with such efficient remedies, there should still remain an impression on the minds of many well-educated persons, and even on a great portion of the faculty, that consumption is incurable. It is with reference to this impression, and with a desire to place the matter in a correct point of view, that I am induced to send these pages before the public. The question is decidedly one of humanity; for, if well grounded hopes can be held out to patients that they may be restored to health, instead of leaving them to the gloomy anticipations of speedy dissolution, it is manifest that this invigorating influence on the mind will act beneficially on the body, and aid materially in strengthening the general powers of the system.

But although a general opinion has for ages prevailed that pulmonary consumption is incurable, yet Laënnec, a celebrated physician in France, some time since proved the contrary. Under his hands, the complaint, even in cases that were apparently of the most critical description, often yielded to a judicious course of inhalation and medicine; and so great has been the extension both of science and art since his time, that the difficulties are now reduced to a degree that renders the task comparatively easy. This eminent man, indeed, published to the world several cases of dissections of the lungs of persons who had many years before their dissolution been afflicted with pulmonary complaints, from which they had perfectly recovered, and had died from other causes. Now these cases satisfactorily prove, that ulcerations in the substance of the lungs will heal; and it is to be remarked that the cavities, with the surfaces healed, were witnessed in the lungs of those who had been afflicted with real organic consumption (that is, the substance of their lungs was really diseased) many years previously to their death, which cavities were no doubt occasioned by the separation of putrefied tubercles.

There are unquestionably some cases that are so severe and complicated with other diseases, that their progress is too rapid to be arrested. They have very generally, and very significantly, obtained the name of a galloping consumption. They seem to unfold themselves all at once with

acute fever, emaciation, and other symptoms of severity, so that a few weeks only are sufficient to carry off the sufferer, and permanent relief cannot reasonably be expected. All that medicine can effect, in such extreme cases, is to mitigate the sufferings of the patient, and render the bed of death less gloomy.

There is also, undoubtedly, a certain stage of the disease in which disorganization of the lungs is so extensive, the ulcerations are so deep and widely spread, that a sufficient portion of substance is not left to perform the necessary function of respiration. In such cases, the utmost efforts of human skill now practicable are quite powerless;—the medical art of the present day is not sufficient to contend with the difficulty, and stem the torrent of disease. Whether the discoveries of after ages will ever put mankind in possession of a means of cure for so hopeless a state, I will not take upon myself to pronounce. We have, in our own time, seen such unexpected strides in every art and science, that to some it might seem rash to deny the possibility of such an event; but, at any rate, our present knowledge of medicine will not justify us in expecting it.

Again: it must be confessed that some patients are very apt to relapse, upon an accession of cold, or other causes that produce tubercular irritation. Such persons must give unremitting attention to their health—they must lead a life of caution and temperance. Fresh tubercles may be produced

by the predisposing tendency which there is in the affected constitution to engender them, or those which have hitherto existed in a quiescent state may break out into dangerous activity, so that constant vigilance is necessary to preserve the lungs in a state capable of resisting morbid influences. Above all things, they must avoid wet and cold, and a careless exposure, with insufficient clothing, to the sudden variations of the weather.

SHORT DESCRIPTION OF THE DISEASE.

It is not my intention to give a very particular and minute description of the causes and symptoms of consumption, because, in addition to the complaint being unhappily too well known, an exact account is unnecessary in a popular treatise. I shall, therefore, only state some of its general characteristics. The chief object I have in view is, indeed, of a more gratifying nature—it is to state how it may, in all probability, be cured; and this will more profitably employ our time, than any laboured or scientific display of mere words.

The earliest symptoms of it, indeed, are often very obscure; for at the time when all the external appearances of health are visible, its insidious attacks are slowly undermining the vital organs; selecting its victims equally among the young and blooming, as among the debilitated and previously diseased. It is well known to all, that an unusual languor attends the patient in whom the disease is commencing—he breathes less freely than formerly—coughs occasionally—and feels some degree of pain in a particular part of the chest. These symptoms gradually increase,

and at length the pulse is found quicker than usual, particularly towards the evening. Great perspiration takes place during the night; in the morning a severe fit of coughing comes on, and the patient feels relaxed and enfeebled. As the disease proceeds, the cough increases in frequency, and from being dry, is accompanied with a purulent mucus, varying according to the peculiar modification of the disease. The fever now assumes the hectic form, and what are called vomicæ, or abscesses in the lungs, the result of the softening and bursting of a mass of tubercles, are formed in various parts. At length general emaciation of the body takes place, with extreme debility. The voice becomes hoarse, the mouth is beset with small white pustules, or the throat is ulcerated. Languid delirium sometimes occurs, but generally the senses remain entire. The extremities grow cold, and death closes the scene.

TREATMENT BY INHALATION.

Of all the plans that have ever been tried for the cure of Consumption, the inhaling of certain medicines is beyond comparison the best, because in this way the remedies selected can be brought into immediate contact with the ulcerated surfaces, and thus obviate the greatest objection that has been raised against the employment of remedial

measures for the avowed cure of consumption, namely, that the part affected cannot be reached. The following explanatory remarks will, I trust, convince all those who have hitherto been sceptical on the subject, that the real fact is far different from what they had imagined.

By inhalation or inhaling is not meant the fumigation of a room, as is sometimes erroneously imagined, but the drawing in of medicinal vapours to the lungs themselves, by means of an apparatus, termed an inhaler, various kinds of which have been invented for that purpose. The process is at once soothing, pleasant, and efficacious, and differs altogether from any plan which requires the slightest operation. Remedies thus administered escape the change that would otherwise be produced upon them by being taken into the stomach, which causes them to undergo the various processes of digestion, absorption, &c., and thus lose their active property before reaching the seat of the disease; but by being inhaled at once into the lungs, they come unchanged into immediate contact with the organs affected, precisely in the same manner as the common air of the atmosphere is received into the lungs, without undergoing any previous alteration. This mode of proceeding is the only one that is consistent with reason, and in harmony with the principles we adopt in other cases; for if any external part of the body has received an injury, or becomes ulcerated, we apply an ointment, lotion, or other sub-

stance, to the immediate seat of the malady, and thus, in conjunction with general remedies, speedily effect its cure. Now, *that* which the ointment effects for any outward part, inhaling performs for the lungs. The system of INHALATION, therefore, involves no theory difficult to be understood; it is merely plain common sense, divested of all mystery or uncertainty; for when the case of any patient is curable at all, it must surely be by those means which gain a direct access to the very parts which require the remedy. This then is the plan which I so strongly recommend, and which, in fact, constitutes the peculiar feature of my treatment. To spread a knowledge of its extraordinary effects, is the chief object of these pages. No other mode of treatment has ever produced such happy results as this; for it has succeeded in numerous cases, where the usual mode of proceeding would have consigned the sufferer to the grave; and it is not too much to declare that, when inhalation is not employed, all other means will be tried in vain. This is proved by the utter failure, in almost every instance, of the methods hitherto pursued. By inhalation, we see that a curative agent is introduced into the chest itself, and made to act immediately on the seat of the disease; thus (as I stated before) the great objection, that the part affected in consumption cannot be reached, is completely done away with; for either a soothing or stimulating vapour can by this simple process be brought into

immediate contact with the ulcerated surfaces, and be made to produce the effect which the individual case requires. Ulceration itself can also be prevented, for tubercles which are only in their incipient state may be so powerfully acted upon by the inhaled vapour, that a removal of them by absorption will take place without the usual softening down into ulceration at all; whilst those which are so far advanced as to be broken out into a state of abscess, are assisted by the immediate access of the inhaled substances to heal rapidly and soundly, in the same manner as any external ulcer is cicatrized by the application of a proper ointment to its immediate surface.

To prove in a very simple manner that we can with certainty effect these beneficial changes, by creating, as it were, any kind of atmosphere or vapour that we choose, we have only to consider the powerful influence which the changes of the common air, as to heat, moisture, and constitution, exercise on the lungs and air passages; for we know well that different states of it affect these passages in very different ways. Now, the common air is received into the lungs by inhalation, and according to the substances with which it is impregnated, so does it produce health or otherwise; consequently, if we form by art a peculiar kind of atmosphere, suited to a certain state of the lungs, and cause it to be inspired as common air is, we shall succeed in effecting the precise change which we aim at. This is all that is con-

tended for, and quite sufficient to shew the reasonableness of expecting the beneficial results which we maintain do actually take place.

It may here be observed, that the effects of inhalation soon become manifest, and are of the most delightful description. It quickly improves the breathing, causes an easy expectoration, relieves the cough, and at once gives comfort to the chest by the removal of every sensation of oppression and pain. The mechanical exercise, also, which the pulmonary organs necessarily undergo by the mere action of inhaling (independently of the medicines employed), is of the greatest utility in expanding the chest, and giving tone to the debilitated parts, thus aiding materially in superinducing a more healthy state. We may frequently remark in patients of naturally weak and sunken chests (observes Maddock), who have inhaled in this manner for a short period, a most marked and beneficial change take place in the external appearance of the thorax; for not only are the lungs themselves expanded by means of the dilatation of their cells, formerly compressed, but the ribs become elevated, and the muscles concerned in breathing acquire a greater degree of power and volume by this increased action of their parts. That the pulmonic system may be strengthened by artificial means is in some measure exemplified by the extraordinary powers of the lungs which characterise the inhabitants of mountainous countries, where, from the frequent

ascent of acclivities, and the necessity of deep and continued respiration, the general power of the pulmonic system is so much invigorated, that they are enabled to bear an amount of fatigue which those unaccustomed to such exercise would speedily sink under. The great difference existing between persons who inhabit countries of this kind, and others situate in confined cities, is, that the latter are deprived of the free and full action of the lungs by their sedentary and inactive employments, and by the impure atmosphere which they breathe. Their lungs are not habitually expanded by healthy exercise and by pure country air, and the consequence is, that the pulmonary organs become sluggish, the vessels lose their vitality, and morbid action supervenes. No plan therefore can be devised more calculated to correct this injurious state than the exercise of the respiratory organs by inhalation, which, when properly persevered in, will expand every part of the chest, and supply the want of natural exercise in that region more fully than any other means can possibly effect. Another grand recommendation to those in the humble ranks of life is, that the apparatus employed for the purpose costs but little, the kind generally used being not more than a few shillings.

But we are not to place our sole dependence on inhalation alone, to the neglect of all internal treatment; for disease of the lungs is always complicated more or less with derangement of other

parts of the system; the digestive functions are frequently much impaired; the liver is considerably enlarged, or otherwise affected; palpitation of the heart, and great inequality of the circulation, also increase the difficulty of the case, by reflecting their morbid influence on the lungs, and thus aggravating the state of the primary disease. This makes it indispensable to call in the aid of other medicines, which are in many cases absolutely necessary, in order to correct the constitutional error, and render the effects of inhalation complete. Many and excellent are the articles of the Materia Medica, which, as I before said, our present knowledge of chemistry has supplied us with, and which exert a powerful influence on the constitutional habit of consumptive patients. These, then, are at our disposal, and we must make use of them; for although we can by inhalation gain immediate access to the seat of the disease, as just observed, yet so great is frequently the general derangement of the system, that until this be duly regulated, it is utterly useless to apply a local remedy alone; for if the constitution remain vitiated or unimproved, the very cause which generates the tubercles still exists, and a cure is impossible. Hence we may see that a more extended view of the disease is necessary than that which confines itself to the pulmonary substance alone, and that our measures must be varied with discrimination and judgment, to suit the different requirements of individual

cases. But every difficulty that can arise on this head will be cleared away by the directions that are given in these pages, so that any intelligent patient or his friends may apply the necessary remedies, according to the varying symptoms, without fear of error. Under the head of "General Internal Treatment" will be found every information that can be required in almost every possible circumstance.

Neither is it sufficient to prescribe one kind of medicine only for inhalation, for although we can depend in a great measure on that excellent means for the cure of consumption, yet it is evident to every sensible person, that no one particular form will be sufficient for every variety of case; for to assert this would be at once to proclaim that we were in possession of a specific for the complaint—a desideratum which I fear will never be attained. Accordingly, I have provided the patient with an ample store of prescriptions for inhaling, so that he cannot fail to find amongst them some that are suited to his case. The short observations which are appended to each, will, in a great measure, serve to guide him in his choice.

The articles which may be used in inhalation are rather numerous; they are:—iodine, conium, hydrocyanic acid, ipecacuanha, chlorine, morphine, lobelia inflata, stramonium, sulphuric æther, digitalis, belladonna, hyoscyamus, papaver, lactuca, black currant, colchicum, hoarhound,

hyssop, red cabbage, hops, and other emollient herbs, vinegars, spirits of turpentine, tar, also some of the gums and balsamic resins.

I shall give formulæ that will contain most of the above medicines, but not in the precise order there enumerated, commencing, however, with the iodine :—

Take of

Iodide of potassium	3 grains.
Iodine	5 grains.
Rectified spirit of wine	2 drachms.
Distilled water	5 ounces.
Tincture of hemlock	6 drachms.

Mix together for inhalation.

Take of

Iodide of potassium	from 4 to 6 grains.
Iodine	6 grains.
Rectified spirit of wine	2 drachms.
Distilled water	from 5 to 6 ounces.
Tincture of hemlock	from 1 to 3 ounces.

Mix together for inhalation.

Take of

Iodide of potassium	5 grains.
Iodine	8 grains.
Rectified spirit of wine	½ ounce.
Distilled water	from 5 to 6 ounces.
Tincture of hemlock	from 1 to 3 ounces.

Mix together for inhalation.

The three preceding Mixtures are set down in the order of their strength, the mildest being first, with which it is in general best to begin. But instead of mixing the hemlock up with the other articles all at once, it is preferable to keep it in a separate phial, and put in half a teaspoonful or more, each time of inhaling, as will be explained presently.

A glass inhaler should always be used for the above. The kind sold by Mr. Garden, of Oxford-street, London, is very excellent, and easy for the lungs of a debilitated patient. Its parts, and the mode of using it, will be understood by every one at a moment's glance, without the slightest explanation. It holds about a quart.

The inhaler is to be about half filled with equal parts of cold and boiling water, and to be placed in a jug of much hotter water (but not boiling), to keep up its temperature.

Put into the inhaler at first from half a teaspoonful to one teaspoonful of the mixture (made up without the hemlock), and half a teaspoonful of the tincture of hemlock, and inhale for five or ten minutes; then add half a teaspoonful of the mixture only, putting in none of the hemlock, and inhale for five or ten minutes longer.

The best mode therefore is, to designate the mixture without the hemlock, No. 1, and the hemlock by itself, No. 2. Thus, writing the first formula in the last page on this plan, by way of example, it will be as follows :—

(No. 1,)
Take of

Iodide of potassium	3 grains.
Iodine	5 grains.
Rectified spirit of wine	2 drachms.
Distilled water	5 ounces.

Mix together.

(No. 2,)
Take of

Tincture of hemlock	2 ounces.

Or any quantity that may be deemed convenient.

Put into the inhaler at first from half a teaspoonful to one teaspoonful of No. 1, and half a teaspoonful of No. 2, and inhale for five or ten minutes ; then add half a teaspoonful more of No. 1 only, and inhale for five or ten minutes longer.

The druggist will label the bottles No. 1, *and No.* 2, *and thus the plan will be quite simple.*

The reason why a fresh portion of the mixture is put in at the middle of the process is, because the iodine is so volatile, that the inhalation would otherwise be too strong at first and too weak at

last; but it is not necessary to add any hemlock for the second half of the time, because, that article being much less volatile than the iodine, its strength is not so soon expended.

If the full quantity of the hemlock is put into the mixture when it is first made up, the mode of proceeding is the same, having only one phial to use instead of two. A teaspoonful of the medicine is to be put into the inhaler for the first five or ten minutes, and half that quantity for the other like period.

A saturated tincture of hemlock is more efficacious than the common one, and if not kept by the druggist employed to make up the prescriptions, may be procured from most of the wholesale chemists in London; but the common one may, in the meantime, be used, and is a very good substitute.

The hemlock softens the action of the iodine, and soothes the bronchial mucous membrane. It is always employed when the cough is particularly irritable. But when expectoration is difficult, we may advantageously add to either of the mixtures 20 minims of the saturated tincture of ipecacuanha, each time of inhaling.

By degrees we may increase the quantity of the mixture (without the hemlock) to four or five teaspoonfuls for the first half of the time of inhaling, and add about two teaspoonfuls more for the remainder of the time. The hemlock also may be put in to the extent of two teaspoonfuls

at first, and no addition made when the time is half expired. It will never be necessary to go beyond these doses.

Instead of hemlock as No. 2, we may use the Inspissated Juice of Belladonna, by putting five or six minims of this article (measured correctly by a minim glass) into the inhaler, with the proper quantity of No. 1, for the first half of the time, and the same quantity for the remaining half; for it may be renewed in this small dose. A change of this sort is often beneficial in cases of great difficulty of breathing and violent cough.

At first, the patient should inhale twice in the day, increase soon to three times, then decrease to twice, afterwards to once, and even occasionally suspend it altogether; by which plan the benefit will be greater when it is again resorted to. The practice must be persevered in for a great length of time; in aggravated cases sometimes for months.

After being accustomed to it, and as his strength increases, the patient may inhale, by degrees, for fifteen, twenty, or thirty minutes at a sitting.

During the time of using the instrument, respiration is to be carried on by inhaling the vapours through the tube, and breathing back through the nostrils; by this means foul air is not sent into the inhaler. This will become easy by a little practice, but at any time when the patient

wants to get more breath, he can remove his mouth from the tube for a second or two. If at the end of eight or ten minutes the patient should feel any fatigue of the chest, he should leave off for a short time, for he should never allow himself to be distressed by the process; and he must endeavour to acquire such a method of drawing in the vapour as will enable him to do it with sufficient effort to make it traverse the air passages quite to his lungs, but without pain.

The patient should not go into the open air for at least an hour after inhaling with water of the temperature above mentioned. Therefore, for those who are engaged in out-door employments the water should only be about the warmth of new milk when put into the inhaler; by this means there will be no risk of catching cold after it. But the best plan in these cases is, to inhale at bed time and an hour before rising.*

The inhaler is to be emptied after each time of using it, and the medicine should be kept well corked up, wrapped round with paper, and in a cool, dark place.

I have now described the plan fully in all its particulars, and it may without hesitation be pro-

* In order to prevent the inhaler being cracked by the hot water the first time it is used, it ought to be prepared in the following manner:—Put it into a large kettle of cold water, and set it on the fire till it boils, then take it off, and allow the water to become cold again before taking it out. By this means it seldom happens that a flaw occurs, and both expense and inconvenience are avoided.

nounced the most certain and the most celebrated method of curing consumption that has ever yet been devised; all other methods have failed, even under favourable circumstances, but this succeeds in most cases, when a fair trial is given to it, provided the patient be not manifestly in the very last stage of the disease. If employed when consumptive symptoms are first perceived, a restoration to health may with certainty be predicted.

The system of inhalation itself was practised ages ago by some of the older physicians of whom we have any certain record, so that it is no new invention of medical science; but the remedies formerly used were not adapted to the end required; the great advantage which it possesses now over all antecedent periods is derived from the efficacious medicines which are used for inhaling at this day, and which have been discovered since the times alluded to. The celebrated Dr. Mead, whose fame as a physician, from 1700 to the time of his death, could not be surpassed, was a great advocate for balsamic medicines being *inhaled* for diseases of the lungs, because *then*, as he said, they had not to travel so far before they reached the diseased surfaces, and did not lose so much by the way; but his power was limited by the low state of chemical science in his time. To this latter circumstance alone is to be attributed the abandonment of so rational a practice by succeeding physicians. The same reasons

do not exist now for its neglect, but, on the contrary, every argument for its constant adoption. Many eminent men now acknowledge that inhaling is their sheet-anchor for the cure of pulmonary complaints; but it is chiefly to Sir Charles Scudamore, of London, that the world is indebted for the proof of its extraordinary powers, and for the judicious employment of one article in particular, namely, iodine. He has demonstrated by innumerable cases of the most discouraging nature, that iodine combined with hemlock is possessed of nearly specific virtues in this complaint, and the mixtures given above are taken, with some few alterations and additions, from Sir Charles's excellent Treatise on the Inhalation of Iodine and Hemlock in Tubercular Phthisis. The directions also now given and the plans generally are nearly such as he recommends, and every succeeding day's experience proves them to be effectual in the highest degree and almost unfailing.

There are, however, certain conditions under which the inhalation of iodine ought not to be employed, and that is during the existence of inflammatory symptoms, or when the expectorated matter is streaked with blood, but when these have been subdued, it is to be adopted or resumed without delay.

To prevent any feeling of disappointment or distrust in those who are commencing the plan, it may be as well to observe, that in some persons the iodine inhalation at first produces a faintness,

slight vertigo, &c., the tongue becomes dry and sometimes coated with whitish flakes, together with a sense of soreness both in the tongue and throat; the gums become spongy, as if from mercury, and even a slight salivation takes place; but these effects either pass away or become too slight to be regarded, as the patient gets accustomed to the use of the inhalation. Practitioners who have not given the plan a sufficient trial are not aware of these circumstances, and have on that account laid aside the medicine. Some have given up the use of it abruptly from having committed the error of commencing with too large a dose, or from not having been careful to mix with the iodine a sufficient quantity of hemlock when the cough is very irritable, a caution highly necessary. It is indispensable also to success that the articles should all be of a pure quality.

It is not to be expected that any *immediate material* relief can be derived from any plan, however good, in so rooted a disease as consumption, but if the medicine agrees with the patient, and appears to palliate the uneasy feelings of the chest, we must be satisfied with this effect for a time, and expect its *curative* powers only after a patient continuance of the treatment, for a period longer or shorter according to the stage at which the disease has arrived. But I fearlessly assert that by perseverance in inhalation, it will be found that even after ulceration has destroyed a considerable portion of the lungs,

they may, in many cases, be healed and radically cured, so that the patient may live free from the disease to a good old age; and I feel a solid conviction that this method is destined to accomplish such favourable results as no other plans would warrant us to expect.

It deserves notice, that in the progress of inhalation, the benefit is not confined to the lungs and air-passages, for the digestive organs partake sensibly of the advantage, being often restored to great regularity and comfort, and the whole system is thus mainly improved.

Sometimes the cough is rendered a little more troublesome at the time of using *any* of the inhalation mixtures, but the expectoration becomes more free, the respiration easier, and the chest is altogether comfortably relieved, thus fully compensating for the occasional trifling aggravation.

When, however, irritation from cough exists to an excessive degree, the following inhaling mixture will be more soothing than that which contains the iodine:

Take of

Hydrocyanic acid, diluted according to the London Pharmacopeia of 1836	1 drachm.
Saturated tincture of hemlock	1 ounce.
or, Extract or inspissated juice of ditto, from	1½ oz. to 2 oz.
Saturated tincture of ipecacuanha	½ ounce.
Rose water	6 ounces.

Mix for inhalation.

This mixture is to be used two or three times a day, according to the urgency of the case, and is to be managed as follows:—Put into the inhaler at first three teaspoonfuls, and inhale from five, to ten, or fifteen minutes, then add two teapoonfuls more, and continue the inhalation for ten minutes longer.

A pleasing warmth in the windpipe and over the chest is effected by this mixture, with an equal relief of the breathing and cough; and I find generally that when I begin with this, or something similar, the pulmonary organs seem to be prepared for the more profitable reception of the iodine inhalation. The latter does not then create that irritation which is sometimes experienced by its employment in the first instance.

In cases where there is considerable palpitation, heat, or pain, about the region of the heart, it will be advisable to add to the mixture one ounce of the tincture or wine of colchicum.

Almost invariably, the use of the hydrocyanic acid by inhalation agrees perfectly well, but it occasionally happens, from a peculiar constitution of the patient, that the odour of it affects the nerves remarkably and inconveniently; if such should be the case, he has only to discontinue it, and the effect will go off.

The quantity of hydrocyanic acid here directed for inhalation each time does not exceed the ordinary dose in which it is taken into the stomach, and, therefore, no danger can be apprehended

from its being administered in this way; for we must remember that it is the *vapour* only of it which is by this means received, and not the substance itself. Large quantities of it are not necessary, for it is to be regarded not as a curative agent, but as a valuable sedative, and for this purpose it forms an excellent addition, in minute quantities, to the hemlock and ipecacuanha.

In all prescriptions having hydrocyanic acid as one of the ingredients, it is absolutely necessary to use no other than *distilled water*, as a decomposition of the salts contained in common water, or of the acid itself, will otherwise take place.

When the irritation from cough and other febrile symptoms are removed, or greatly relieved, by the preceding *soothing* mixture, we may resume the iodine inhalation, either with or without the hemlock. If the cough is troublesome from time to time, it will be better to add the hemlock; but, if not so, the iodine mixture without it is more favourable to the discharge of glutinous and ropy matter, which is got rid of generally with great difficulty.

CHLORINE INHALATION.

The next article we will consider for inhalation is chlorine, and this is deemed by some practitioners, particularly in France, superior even to

iodine, but, in my opinion, falls far short of it in its curative powers, for I have never been fortunate enough to derive much benefit from its employment, and therefore cannot but think some of the cases overstated in which it has been said to have operated with such extraordinary effects, but that it has also effected a cure in some instances I have not the slightest doubt.

The mode of employing it is to pour from five to ten drops* of the saturated aqueous solution of chlorine into the inhaler, containing water considerably warmer than new milk. Inhale for about five or six minutes; then put in the same quantity again, and inhale for a few minutes longer. This may be done three, four, or five times a day. If much irritation of the air-passages be present, the same quantity of tincture of hemlock, or of the inspissated juice, may be added each time; or, instead of hemlock, we may put four or five minims of the inspissated juice of belladona in with each dose of chlorine. It will be prudent not to employ larger doses of chlorine than the above, except under the superintendence of a medical man.

* In order to be more exact, it will be best to buy what is called a minim glass, and drop in about seven or eight minims instead of ten drops. Graduated glass measures of this sort should always be used when the medicine is of a particular or powerful nature. The various formulæ mentioned in this treatise, or in any other, cannot be properly managed without them. Small scales and weights are also indispensable.

After iodine inhalation has been continued for a considerable time, I agree with Sir C. Scudamore in recommending chlorine occasionally, on the principle of changing the stimulus; and also in those cases where the operation of iodine seems to disagree. The preparation above mentioned is the pure gas held in solution by distilled water.

MORPHINE INHALATION.

Take of

Acetate of morphine	from half a grain to 1 grain.
Distilled vinegar	1 teaspoonful.
Decoction of poppy heads	1½ pint.

This is for one dose, to be mixed together in the inhaler, and used three times a day, about ten minutes each time. It is highly beneficial when the cough is harassing, and the patient is in an irritable and nervous state.

The decoction of poppy is made by boiling two ounces of the white poppy heads, bruised, in two pints of water, for a quarter of an hour. It is then to be strained and put into the inhaler; and, in order to keep up its temperature, the inhaler should be placed in a jug of hot water, as in the preceding instances.

INHALATION OF LOBELIA INFLATA.

We have found the following inhaling mixture, though suited more particularly to asthmatic cases, very successful in an ulcerated state of the lungs:—

Take of

The diluted hydrocyanic acid of the Pharmacopeia	1 drachm.
or, Aromatic spirit of ammonia	½ ounce.
Æthereal tincture of lobelia inflata ..	from 1 to 2 ounces.
Rose water	6 ounces.

Mix together for inhalation.

This is to be used two or three times during the day, precisely in the same manner as the mixture in page 37,—that is, by putting in three teaspoonfuls for the first ten or fifteen minutes, and adding one or two teaspoonfuls more for the same period longer.

INHALATION OF BELLADONNA, OR DEADLY NIGHTSHADE, &c.

Take of

The inspissated juice of belladonna	6 minims.
Tincture of balsam of tolu	2 teaspoonfuls.

Mix together for one inhaling dose; to be put into the inhaler, with a pint of hot water; or, to save trouble, the following quantity may be mixed up at once:—

Take of

The inspissated juice of belladonna 2 teaspoonfuls.
Tincture of balsam of tolu .. from 5 to 8 ounces.
Mix together.

And of this two teaspoonfuls may be used for an inhaling dose, two or three times a day, with a pint of hot water.

Sulphuric ether is often beneficially used in conjunction with the above, not only for asthma, but for pulmonary consumption. The best mode of managing it is as follows:—

(No. 1.)

Take of

The inspissated juice of belladonna, from a teaspoonful to a teaspoonful and a half.
Tincture of balsam of tolu .. nearly half a pint.
Mix together.

(No. 2.)

Take of

Sulphuric ether 2 ounces.

Put into the inhaler three teaspoonfuls of No. 1, and one teaspoonful of No. 2, each time of inhaling. It may be done two, three, or four times a day, for ten minutes or a quarter of an hour at each sitting. The last time of using it should be just before going to bed.

The quantity of the belladonna may be very cautiously and gradually increased by a drop or two in a dose, but its effects must be carefully watched. The symptoms which indicate that it has been taken for a sufficient length of time are, dryness of the mouth, a sense of constriction of the throat and adjoining parts, a feeling of extreme tightness across the chest, sickness, vertigo, and dimness of sight. When these symptoms come on, the medicine must be immediately discontinued for some time, till all the effects have completely disappeared; and, when resumed, it must be employed in smaller doses, increasing gradually as at first. Like all other remedies whose operation acts upon the nervous system, the effects produced by belladonna very much depend upon the peculiarity of the patient's constitution, and the susceptibility there exists in his nervous system of receiving this kind of impressions.

Daily experience proves that this remedy exerts a curative influence over the ulcerated surfaces of

the lungs very similar to that of iodine; and when the latter article appears to disagree with the constitution of the patient (as in some few instances it possibly may), this may be employed with great expectation of success.

VARIOUS OTHER FORMULÆ FOR INHALATION.

All these formulæ will consist of herbs, without any spirituous tincture, and may be employed at all times with advantage when there is any febrile irritation, or inflammatory action in the bronchial tubes and adjoining parts, as in recent colds, influenza, sore throat, hoarseness, bronchitis, inflammation of the larynx, lungs, &c., for in such cases the spirituous inhalations are inadmissible, and would infallibly produce injury. In the two latter diseases, an early employment of these herbs will prove more efficacious than any other means. In urgent cases, a frequent repetition throughout the day is necessary, and in copious quantities.

To any of these formulæ may be added (in the inhaler) small proportions of hemlock,—such as a teaspoonful of the tincture, or a teaspoonful and a half of the inspissated juice, to a

pint of the fluid. Hemlock may be used with any other remedy, and it generally adds to the beneficial effect. A few trials will satisfy each patient whether it does so with himself. That it exerts a specific influence on ulcers and tubercles of the lungs no practitioner will doubt who has extensively employed it. Henbane may be employed in its stead, but it is not so pleasant or effectual, and therefore I have not inserted it in any of the formulæ.

The inhaler may in all cases be placed in a jug of hot water (as at first directed), to keep the temperature at a proper point.

These formulæ are, in general, to be used two, three, or four times a day, from ten minutes to half an hour at each sitting, according as the patient has leisure or other circumstances require.

For inhaling tinctures, extracts, powders, and other articles which do not require much room, a glass inhaler, capable of holding about two pints of water, is suitable; but for herbs, roots, &c., which are sometimes put in by handfuls, and occupy considerable space, it is necessary to have more capacious inhalers of tin or other metal. One of the best is Read's Improved Patent Inhaler, which has a valve for allowing the escape of the impure breath at every expiration, instead

of its being returned into the vessel, whilst the lungs are charged with pure vapour at every inspiration. Thus a great evil hitherto complained of in apparatus of this sort is completely obviated. Some inhalers are constructed with a lamp, and a small thermometer to regulate the temperature according to the feelings of the patient.

Take of

Dried marshmallow roots	1 ounce.
Gum Arabic, in powder	½ ounce.
Boiling water	1 pint.
Good vinegar	1 ounce.
or, Inspissated juice of the lettuce	½ ounce.

Mix this quantity for use three or four times a day, or oftener, till the symptoms of the disease are much subdued.

Very efficacious in bronchitis, inflammation of the larynx, lungs, &c.

Take of

Foxglove and hemlock, cut into fine portions, of each	10 grains.
Powdered ipecacuanha	2 grains.

Mix for a dose, to be used three times a day; the inhaler to be half filled with water, as hot as it will bear without cracking.

This mixture will produce very soothing effects in excessive coughs and consumption, relieving

the irritability, and effecting a more easy expectoration of the accumulated matter.

Take of

The flowers or leaves of coltsfoot,	
The tops of common hoarhound,	
Ditto of the lesser centaury,	
Ditto of the common germander, of each	½ ounce.
Water as hot as the glass will bear	2 pints.

To be used three or four times a day. The above is one dose.

If the tops (that is, the flowers) of the plants are not to be had, the leaves must be employed; and, if fresh, they will require to be used in double the quantity that would be necessary in dried plants; the reason for which is, that in dried plants the best portion of their juices is left behind, the more watery parts (which are comparatively inert) being dissipated in the process of drying.

All the articles mentioned in this formula have been celebrated throughout every age for diseases of the chest. Coltsfoot (tussilago) though little used in modern practice in our own country, has been proved by the most observant physicians to be a valuable expectorant, and a very effectual remedy in coughs, asthma, and consumption. It contains a mild mucilaginous juice, which at the same time is not inert and tasteless, but endued

with a somewhat sharpish flavour, and if employed in time, will, I am firmly convinced, prove the salvation of many young persons.

From the remotest antiquity hoarhound (marrubium vulgare) has enjoyed the highest repute in these diseases, and though seldom prescribed now-a-days, it nevertheless merits the eulogiums bestowed upon it by the older physicians. It is beyond all dispute a very powerful medicine for dissolving and dislodging the viscid tough phlegm which clogs the bronchial tubes, and facilitating its expectoration. Nor is its action confined to the lungs; wherever obstruction is produced by a thick viscid state of the fluids, it will be found a very effectual deobstruent. When taken internally it is particularly serviceable in removing the cachectic state, or depraved habit of body, and unhealthy colour of young females in whom the menstrual discharge is very irregular, either with regard to its non-appearance at that period of life when it generally commences, or to its suppression afterwards. Under the head of "General Internal Treatment," we shall give a form composed of these same articles, which will be highly useful in such cases, for it cannot admit of a doubt that consumption in females is often dependent on uterine irregularity. (See page 71.)

The lesser centaury (chironia centaurium) was proved by Ettmuller, a renowned physician of Germany, to be very efficacious as an outward application (by way of decoction) to ulcers and

fistulas. It speedily excites the healthy parts to action, and thus effects a cure, and will be found no less serviceable, in exhalation, to tuberculous ulcers of the lungs.

The diseases for which the common or wild germander (teucrium chamœdrys) has ever been celebrated, are gout, rheumatism, irregular menstruation, jaundice, and diseases of the mesenteric glands. The latter complaint is a too frequent accompaniment of disease in the lungs; it is, in fact, more difficult to cure, because not accessible by inhalation (see page 54 and 82), and is the cause of a fatal termination, in many cases, wherein the lungs might have been healed. Germander grows on the borders of ploughed fields and in woods, but unfortunately is not very abundant in this country. If it cannot be obtained, the quantity of coltsfoot had better be increased in the above prescription to one ounce.

Take of

Hops	½ ounce.
Boiling water	1 pint or 1½ pint.

Let it stand till it is cool enough to be put into the inhaler: it will then be of a proper strength to use; then strain it for that purpose. To be used three times a day, for ten, fifteen, or twenty minutes at a time.

When there is considerable restlessness and want of sleep at night, this may with great propriety be employed a short time before going to bed, as it will not only produce sleep, but reduce the frequency of the pulse, and increase its firmness in a very direct manner.

Take of

Liquorice root, cut into thin slices ..	1½ ounce.
Or powdered extract of liquorice root ..	½ ounce.
Hot water	1 pint.
Inspissated juice of hemlock	2 teaspoonfuls.

Mix for an inhaling dose, three times a day, ten or fifteen minutes at a time.

This is applicable to all cases without exception; such as coughs, influenza, bronchitis, sore throat, hoarseness, inflammation of the lungs, &c.

Instead of putting in all the hemlock at once, it may be better to use only one teaspoonful at first, and after inhaling ten minutes, to put in the other.

If it be found difficult to obtain the inspissated juice, the common extract must be used, and it had better be dissolved in a cup with a small quantity of hot water previously to being put into the inhaler.

Take of

Chamomile Flowers	5 or 6 drachms.
Or Hops	½ ounce.
Boiling water	1 pint or 1¼ pint.
Good vinegar	1 ounce.

Mix for an inhaling dose for frequent use during the day.

It is applicable to all the same cases as the last, and will frequently arrest the most alarming symptoms, by quickly subduing the irritation.

Take of

Common mallows	1 ounce.
Camomile flowers	½ ounce.
Hot water	1 pint.

Mix for a dose, to be used either with or without vinegar, in the same manner as the two last, and for the same complaints.

Take of

The leaves of hyssop	1 ounce.
Boiling water	1 pint.
Honey	2 teaspoonfuls.

Mix for a dose; two or three times a day. In some cases this is very useful, being more stimulant and tonic than most of the other herbs above

mentioned, and therefore will suit some peculiar constitutions. It has been employed for diseases of the chest from the most remote antiquity.

Take of

Iceland moss	1 ounce.
Water	1½ pint.

Let it boil about a quarter of an hour, and, when cool enough to be put into the inhaler, add two teaspoonfuls of distilled vinegar. To be done three or four times a day for a quarter of an hour.

This will allay cough, and relieve oppressed breathing. It will also greatly mitigate the hectic fever, and, being tonic as well as demulcent, will much invigorate the digestive organs.

The Ceylon moss, introduced into this country not many years ago by Dr. Sigmond, is better still, if it can be procured genuine. In addition to all the best properties of the Iceland moss, it contains a proportion of iron, which renders it a highly efficacious remedy in these diseases. The Carragaheen moss likewise may be employed in the same manner, and when consumption is attended with disease in the mesenteric glands greater benefit may be expected from this than from either of the others. It is a valuable restorative in cases of general debility, whether taken

internally or employed in inhalation. Under the general internal treatment we shall state the means of administering it.

Red cabbage is possessed of great medicinal powers in consumption, and is used to greatest effect in the following manner:—

Take of

Fresh leaves of red cabbage, cut into small pieces	3 handfuls.
Boiling water	4 pints.
Boil down to three pints, and add of honey	2 ounces.

Boil again; skim it during the time, and afterwards let the whole be strained. About a teacupful may be put into the inhaler at a time, with a pint of hot water, and the vapour thus received in the usual way, three, four, or five times daily.

This composition will effectually diminish the irritation of the respiratory organs, lessen the cough, and facilitate expectoration.

A teacupful of it may also be drank internally three times a day (if it does not derange the bowels), and thus the system will receive all the benefit which this excellent remedy can impart.

Black currant leaves are another remedy which ought to be more frequently employed in the

treatment of consumption. Many a patient would be saved if they were used, in the first stage of the disease, according to the following plan:—

Take of

Fresh leaves of the black currant, cut into pieces	2 handfuls.
Water	1½ pint.
Boil down to one pint, strain, and add of inspissated juice of hemlock	2 teaspoonfuls.

One-third of this quantity is to be put into the inhaler at a time, with hot water, and it may be done three times a day, so as to use the pint during that period.

The above preparation, without the hemlock, may also be drank internally, in doses of a wine-glassful, three or four times a day, if it has not a disagreeable effect on the bowels. It is a strong diuretic, and will thus carry off much foulness of the system by means of the kidneys.

Though these leaves have a strong smell, they are not at all unpleasant to the taste.

CAYENNE PEPPER.

Take of

Cayenne pepper	1 or 2 teaspoonfuls.
Boiling water	1 pint.
Vinegar	2 tablespoonfuls.

Mix for an inhaling dose, two or three times a day.

For chronic hoarseness and sore-throat this is much more efficacious than all the gargles that can be employed. It is also very beneficial in deafness arising from obstruction in the Eustachian tubes.

Take of

Tincture of capsicum	2 or 3 teaspoonfuls.
Boiling water	1 pint.

To be used for one inhaling dose, two or three times a day, in the same cases as the last mixture, and for inflammation of the tonsils, that is, those two round glands situated, one on each side of the fauces, at the base of the tongue. The fauces means the cavity which appears at the back part of the mouth, behind the tongue.

TURPENTINE.

Take of

Rectified oil of turpentine ..	2, 3, or 4 teaspoonfuls.
Honey	3 teaspoonfuls.
Hot water	1 pint.

Mix for an inhaling dose; three times a day.

The effects of turpentine inhalation are sometimes very marked and beneficial in coughs,

bronchitis, and pulmonary affections. This remedy is decidedly applicable to young females, who labour under the cachectic habit of body described in page 50, arising from irregularity in the monthly visitations.

Before quitting the subject of inhalation, it will be proper to mention the mode of fumigating a room by means of the vapour of tar, which may be deemed a kind of inhalation, although the vapour to be received into the lungs is diffused throughout the whole apartment. This fumigation has unquestionably effected wonders in some cases of consumption, but it is necessary to know under what circumstances it will be beneficial; for in one species of the complaint it aggravates the evil rather than produces good. I will therefore previously give a short account of each kind of consumption, so that the principal characteristics in which they differ may be understood, and that we may thus be able to discriminate the species of the disease to which the fumigation is adapted. This is attended with very little difficulty, and requires no great acuteness of obsertion, but the advantage gained by it is very important.

Authors differ in the names by which they designate the various kinds of consumption, but the disease seems to divide itself into the three

following varieties, which are now generally considered as the principal:—

1. The catarrhal or membranous consumption; or chronic bronchitis.
2. The scrofulous consumption.
3. The tubercular consumption.

1. The catarrhal, or membranous variety, commences in and is confined to the membrane which lines the windpipe and the air-vessels—the substance of the lungs not being diseased. The mucus expectorated is at first frothy and nearly transparent; but, as the disease advances, the matter becomes thick and opaque, or what is called puriform,—that is, like *pus* or matter, with an earthy odour.

2. The scrofulous kind forms abscesses termed *vomicæ*, which *suppurate*. The matter expectorated is brought up enveloped in mucus or phlegm, and is of a *light curded* appearance, of a sweetish taste in the mouth of the patient, and emits no putrid odour till within a week of its fatal termination. It may easily be discovered by a microscope in the mucus with which it is expectorated. After being agitated in distilled water, it gravitates to the bottom of the phial, being heavier than water, while the mucus with which it was entangled, being lighter than water, ascends to the top. This is the surest criterion, and the most to be depended on.

3. The tubercular kind forms ulcers or tubercles, which never suppurate, but decompose, putrefy, escape into the ramifications of the air-vessels, and are expectorated by coughing. The matter of this kind is also brought up enveloped in mucus, but it is more easily detected by its *dark brown colour*, and by its offensive putrid odour and taste in the patient's mouth, as it is brought up.

It is further to be noticed, that the tubercle forms only in the *pale, languid* habit, while the scrofulous vomicæ occur in the lungs of *florid* and *plethoric* subjects. The irritation or inflammatory action excited by the putrefied tubercle, and the subsequent ulcerative process, is generally so trifling, as not to disturb the circulation or the general health, and the cough is short and expectoration trifling; but suppuration of the scrofulous vomicæ is generally attended with acute pain, especially on coughing, the expectoration is more copious, the circulation is hurried, the temperature of the body increased, and the whole system is more or less disturbed, till the contents of the vomica, or vomicæ, have escaped, when the system becomes quiet, respiration considerably more free, and the cough less troublesome. In the scrofulous species, the pupils of the eyes are distended, the lip and countenance altogether indicating the scrofulous diathesis, the palms of the hands and the soles of the feet often dry and hot, with cold shiverings, succeeded by heat, and afterwards by

copious prespiration. The sleep is much disturbed. The heart frequently acts irregularly, sometimes the palpitation being considerable, and the pulse very quick. The urine is high coloured, and deposits considerable sediment. In the tuberculer species, the pupils of the eyes are natural, and the hands and feet cold, but the urine is pale, When rigors, or shivering fits, occur, they are very slight, and are followed by little or no fever. The prespiration is clammy and rarely profuse, the bowels undisturbed, and the appetite good. In the scrofulous species, especially when mischief takes place in the abdomen, the system gives way to the malady in the course of two or three months; but in the tubercular species the patient generally recovers, and when there are other tubercles, the disease will continue, more or less, many years.

These characters will enable most people of common observation to discriminate which species of consumption a person may be labouring under; but particularly may the patients themselves be able thus to form their judgment, and when from careful decision, the species is known, they may proceed with certainty in applying or rejecting the fumugation of tar. For it is in the tubercular kind that this remedy is so beneficial, whilst in the scrofulous kind it aggravates the disease; for the two species being in fact as opposite in their nature as any two other diseases, the treatment applicable to one is manifestly improper for the

other. In the membranous kind it is also productive of the greatest good. It corrects the morbid secretion of the affected membrane, and enables the small air-vessels to convey their loads of mucus to the larger, so as to be expectorated by coughing.

The mode of administering the vapour of tar I will now endeavour to describe as clearly as possible.

Put one pound of liquid tar, such as is employed in the cordage of ships, into an earthen pipkin that will hold two quarts. Place the pipkin on the fire, or better still, over a spirit-lamp, and take care that it boils slowly for some minutes, and does not burn. When it boils, set it (emitting volumes of vapour) near the bed or chair of the patient, on a table, and let him inhale it through a funnel.

The patient may continue to inhale the vapour three or four hours, with only short intervals necessary to prevent fatigue; or it may be discontinued after twenty minutes or half an hour, and repeated every two or three hours; thus it may be kept up all day.

In about a month the cough and expectoration will generally cease, even in very bad cases; there will, however, occur some instances which require a longer continuance of the plan. Should cough

or any other symptoms return from neglect or disuse of the remedy, it must be immediately resumed.

For the first week or two patients generally fall asleep, and awake with a headache; but this inconvenience does not occur after they are more accustomed to the practice.

The use of the fumigation and inhalation should not be continued after the cough, expectoration, and hectic symptoms are greatly subdued; and patients should not after using it, expose themselves hastily to a cold air, but wait till the temperature of the body is cooled down to a proper state, which will require the space of an hour or more.

When there is the slightest appearance of spitting of blood, the fumigation must be avoided, as it evidently increases the discharge.

Should the vapour in the *boiling state* be too powerful and provoke the cough, we may place a pound of tar in an open vessel near the bed of the patient, and merely stir it frequently with a stick; it may thus be inhaled as before through a funnel. The large end of the funnel should, in either case, be broad enough to cover the surface of the pipkin or vessel made use of; and when the tar is used without being boiled, the funnel should be kept almost constantly to the mouth.

A very good funnel may be made with pasteboard put into a conical shape, with a hole at the top.

The pipkin which contains the tar should be well cleansed *every* day, otherwise the residuum may be burnt and decomposed, which would occasion increased cough and oppression on the chest.

Some physicians advise an ounce of nitre, or carbonate of potass, to be added to the pound of tar, to destroy the pyroligneous acid which the tar contains, and which, they say, excites coughing, but there can be no necessity for this; for the fact is, that tar contains so small a proportion of pyroligneous acid, that two ounces of the potass will neutralize the quantity that exists in a hundred weight of tar, and there is no doubt that the vapour of the *acid* which is in a very *dilute* state, is as beneficial as the essential oil or resin of tar; indeed, the good effects which the tar vapour has produced may principally be attributed to the pyroligneous acid, to destroy which, therefore, would be manifestly the greatest of errors.

I think the mode of managing this remedy, as I have now explained it, cannot be misunderstood, and I should strongly advise all who are labouring under the tubercular species of consumption, and who have, by previous neglect of fresh air and exercise, reduced themselves so as to keep their room, to give it a trial without delay. For if I may judge from my own experience, the adoption of this excellent remedy will soon produce a gra-

dual cessation of cough, spitting, and perspiration, and strength will be gained daily, sometimes without the use of any other remedy. I have seen it restore a patient even after he had taken altogether to his bed, and expected to survive but a few days.

As the inhalation of creosote has, after the most extensive trials by Dr. Elliotson and others, been found perfectly useless, it may here be dismissed without further notice.

This part of my subject cannot be better concluded than by assuring patients that the inhalation of warm water merely will often be attended with the best results, but it will have greater effect if a little vinegar be added to it, which is very efficacious as an auxiliary in such diseases as croup, bronchitis, inflammation of the larynx, inflammation of the lungs, &c. Also a warm infusion of any emollient herbs, such as marshmallow, camomile flowers, &c., with an addition of vinegar, according to the formulæ given in the preceding pages, inhaled often in the course of the day, will materially assist the effect of internal medicine. If these simple remedies be adopted when cough, influenza, sore throat, or irritation of any kind in the air-passage, first makes its appearance, they will often prevent the establishment of consumptive disease in the constitution. All persons, therefore, who are peculiarly liable to such affections

should immediately endeavour to cut short the attacks by local applications of this description, which will restore the parts to healthy action sooner than any other plans that can be devised.

GENERAL INTERNAL TREATMENT.

It has been previously observed, that, however excellent the system of inhalation may be, our sole dependance is not to be placed upon it, to the neglect of all internal treatment; for disease of the lungs never exists alone,—the general system is more or less affected, and many parts of it especially so. Various affections of the heart, a diseased state of the liver, faulty action of the kidneys, pleuritic pains of the chest, obstinate indigestion, deranged state of the bowels, &c., exist in various degrees,—some patients being under the influence of one or more of these maladies, others suffering from complications of a different kind. The object, therefore, of all treatment must be, to combat as effectually as it can, the disordered states existing in any part of the frame, and this is to be accomplished by such auxiliary medicines as, when taken internally, will correct the constitutional error. Dr. James Clarke has satisfactorily proved that there is a certain state of the constitution which frequently precedes the development of tubercles in the

lungs, and is capable of generating a predisposition to them. If this state has been neglected at the commencement, and has been insidiously working its direful effects upon the frame, we must endeavour to oppose its ravages with the greater energy when its existence is detected. To attain this end, I shall in this part of the treatise state at length every remedy which I have found to be capable of restoring the faulty secretions to their normal state, carrying off foulness from the system, and invigorating the general powers of the constitution.

The following mixture is well adapted to those cases in which febrile irritation still exists; and although it is calculated to subdue that state of the system, it generally imparts, at the same time, a considerable degree of strength:—

Take of

Iodide of potassium	from 15 to 30 grains.
Compound spirit of lavender..	1 drachm.
Hydrocyanic acid, diluted according to the London Pharmacopœia of 1836	from 6 to 12 minims.
Simple syrup	1 ounce.
Peppermint water to make it up	8 ounces.

Mix, and take one tablespoonful three times a day.

When there is considerable heat, palpitation, or pain at the region of the heart, it will be pro-

per to put into the above mixture from a drachm to a drachm and a half of the tincture of foxglove: for, in the whole range of medicine, there is no article like this, which has the power of diminishing the heart's action, and of allaying the irritability of the nervous system. Some years ago it was much more extensively employed in pulmonary consumption than it is now; and the mode of treating the disease by full doses of foxglove, according to the suggestion of Dr. Beddoes, will be given in a future part of this little work. Foxglove is a most powerful narcotic, and, when given in *improper* doses, it produces very alarming symptoms; but the quantity above ordered may be persevered in for months without occasioning the slightest inconvenience: for if we put into the whole mixture only 1 drachm of tincture of foxglove, each dose will contain $3\frac{3}{4}$ minims of that article, which is not one half of what is considered a small dose. In diseases of the heart we generally begin with 10 minims for a dose, and gradually increase it.

As I am writing chiefly for those who are not expected to have an extensive knowledge of medicine, I may as well remark that the doses of two other powerful articles in the above mixture, namely, the iodide of potassium and the diluted hydrocyanic acid, are of the most moderate description. If only fifteen grains of the iodide of potassium be put in, each dose will

contain not quite one grain of that article, and it is never commenced in a smaller quantity. Again, if we put only 6 minims of the diluted hydrocyanic acid into the mixture, we shall have in each dose not quite one half of a minim, which is a very minute and perfectly safe proportion. It may in general be observed that it is always best to begin with the smallest quantities mentioned in the prescriptions, and increase them gradually to the larger, if they be found to agree with the patient; and should any inconvenience arise to any one, from his peculiarity of constitution (which will be known by his stomach or head being disordered, producing sickness and dizziness,) he will only have to discontinue the mixture for a short time, or take it in diminished doses until the effect goes off. But not one person in five hundred will be compelled to lay it aside from this cause.

I have been thus particular in offering this explanation at the outset, that patients may be assured of the perfect safety attending the course which I advise. I have given these doses in numerous instances to children of ten or twelve years old, with the most complete success, and without a single instance of any inconvenience resulting from it.

The following are other forms of medicines proper to be taken when the system is in a

feverish state. They will allay irritation, cough, and inflammation, and confer great benefit on the general system :—

Take of

Hydrocyanic acid, (diluted according to the London Pharmacopœia of 1836)	from 6 to 10 minims.
Compound spirit of sulphuric æther	3 drachms.
Ipecacuan wine	2 drachms.
Oxymel of squills	½ ounce.
Camphor mixture to make up	½ pint.

Mix, and take two tablespoonfuls three or four times a day.

Take of

Tartarized antimony wine	1 drachm.
Gum arabic powder	½ ounce.
Laudanum	15 minims.
Simple oxymel	1 ounce.
Almond emulsion	6 ounces.

Mix. Two tablespoonfuls to be taken three times a day.

Take of

Oxymel of squills	1 ounce.
Syrup of poppies	1 do.
Paregoric elixir, (that is, compound tincture of camphor)	1 do.
Tartarised antimony wine	2 drachms.
Aromatic sulphuric acid	1 drachm.

Mix. A teaspoonful to be taken three or four times a day.

Take of

Spermaceti	1½ drachm.
The yolk of one egg.	

Mix these well together in a mortar, and add

Syrup of tolu	½ an ounce.
Distilled water	3 ounces.
Pennyroyal water	3 do.

Mix, by shaking them well, and take a table-spoonful frequently.

Take of

The best clarified honey	2 ounces.
Oil of sweet almonds	2 do.
Lemon juice	1 ounce.
Syrup of tolu	2 drachms.

Mix them thoroughly, and they form what is termed a linctus; that is, a medicine which is to be licked from a spoon. A small quantity of this may be taken frequently.

ANOTHER LINCTUS.

Take of

Mucilage of gum arabic	3 drachms.
Laudanum	from 10 to 20 minims.
Hydrocyanic acid, (diluted according to the London Pharmacopœia of 1836) ...	8 minims.
Simple syrup	2 ounces.
Water	1½ ounce.

Mix; a dessert spoonful to be taken four times a day. It is very effectual.

Take of

Extract of hemlock	... 24 grains.
Extract of henbane	... 24 do.
Mucilage of gum arabic	... 1½ ounce.

Rub them well together until they are thoroughly mixed, then add

Solution of the acetate of ammonia	... 3 ounces.
Syrup of red poppies	... 6 drachms.
Pure water	... to half a pint.

Mix all together, and take a sixth part three or four times a day.

In all those cases wherein a sixth or fourth part of any medicine is directed to be taken, it should be sent out in a graduated phial: that is, one divided by figures into the proper number of parts, so that the prescribed dose may be seen and poured out exactly.

When the above is employed it should be continued until its effects become slightly manifest on the constitution,—which are a sensation of sickness, dimness of sight, and giddiness; the eyeballs will feel as if they were strained. As soon as these are produced the medicine is to be left off, or taken in diminished doses, till the effects cease; it may then be gradually increased again, or some of the other formulæ adopted in its place for a time, on the principle of a change, as I have observed when speaking of chlorine and iodine.

In modern practice considerable advantage has accrued to medicine from the use of hemlock, which, like opium and many other narcotic poisons, however powerful and deleterious in a large dose *taken at once*, may, nevertheless, be *gradually* introduced into the system with perfect safety; and a dose which at first would inevitably have proved fatal, may at length be taken three or four times in the day without the least inconvenience. I am convinced that hemlock, when judiciously administered, will, in many constitutions, go far towards effecting a cure of pulmonary consumption.

In page 49 I stated my intention of giving a prescription for a mixture to be taken, composed of the same articles as the inhaling medicine then under consideration. Here it is; and the invalid may depend upon the good effects which it will produce :—

Take of

The flowers or leaves of coltsfoot... ...	1 ounce.
The tops of common hoarhound	½ an ounce.
Do. of the lesser centaury	¼ do.
Do. of common germander	¼ do.
Powdered extract of liquorice	2 drachms.
Boiling water	2 pints.

Infuse for two hours, strain it, and take a teacupful three times a day.

The coltsfoot may be increased to an ounce and a half or more.

The same observations as were made in page 48 respecting the leaves, if the tops are not to be had, apply here; and if the lesser centaury cannot be obtained, put in an ounce of marshmallow roots in its place.

Coltsfoot alone is very good; and when time is wanting for the due preparation of the above, or other causes prevent it, a handful of the leaves of coltsfoot, or half a handful of the flowers, may be boiled in two pints of water to a pint and a half. The decoction is then to be strained and sweetened with sugar candy or syrup. The dose is a teacupful, as above, three times a day.

When much fever is present it will be advisable to employ saline effervescing medicines, which are generally very efficacious. The two following are as good as can be prescribed:—

Take of

Carbonate of potass	4 scruples.
Nitrate of potass	2 do.
Simple syrup	3 drachms.
Water	6 ounces.

Mix, and take a tablespoonful every three or four hours, adding to each dose eight or ten grains of citrid acid powdered, and drink it while effervescing.

Or this draught:—

Take of

Subcarbonate of potass	1 scruple.
Cinnamon water	2 drachms.
Common water	1½ ounce.
Syrup of orange peel	1 drachm.
Nitrate of potass	8 grains.

This is for one dose, and at the time of taking it add twelve or fifteen grains of citric acid powdered, and drink it in the state of effervescence. It may be repeated every three or four hours, till the object is accomplished.

The druggist will weigh off the proper quantity of citric acid in separate papers.

The following is also an admirable mixture for the feverish state:—

Take of

Sweet spirit of nitre	1 ounce.
Antimonial wine	25 minims.
Solution of the acetate of ammonia	2 ounces.
Tincture of henbane	1½ drachm.
Camphor mixture	5 ounces.

Mix. The dose for an adult may be two tablespoonfuls three times a day, but for young persons under twelve years of age about half that quantity.

When the cough is very constant and harassing, depriving the patient of all rest in the day, or sleep at night, he may employ the following cough pills, which are far superior to any which are advertised so pompously in the public papers:—

Take of

Compound squill pill of the London Pharmacopœia	2 drachms.
Powdered ipecacuanha,	
Powdered gum benzoin, of each	12 grains.
Powdered opium	8 grains.
Or acetate of morphine	3 grains.
Tartarized antimony..	4 grains.
Calomel	6 grains.

Mix, and make into thirty-six pills, of which adults may take two at night, and one in the morning. Young persons under twelve may have one at night and morning.

The sweet spirit of nitre should be of the purest quality; for, by age, or exposure to the air, it is so far decomposed as to possess very opposite properties; the bottle, therefore, which contains it, should be well corked, and kept in a cool place, inverted in water.

After the subsidence of all feverish symptoms, we may have recourse to mild tonics and restorative medicines, for the lowering plan must not be

pushed too far. At the same time caution is necessary, and the system must be prepared by degrees for the reception of the more powerful tonics, which, if given too freely at first, would unduly excite the circulation, and produce very injurious effects. It is, therefore, in all cases advisable to commence with the milder kind, such as the Iceland and Carragaheen Moss, Sarsaparilla, &c.; and when a considerable degree of strength has been gained, we may proceed with advantage to the more active and powerful corroborants. But much injury may accrue to the patient from over anxiety on the part of the medical attendant to avoid producing inflammation. The disease is essentially one of debility, and by persevering too systematically in that mode of treatment which depresses all the powers of the patient, we shall bring on the very irritation which we profess to avoid. This point is most happily illustrated by Sir Charles Scudamore, in the work I have before mentioned, and I will here introduce his excellent remarks:—"We have, in reality," he says, "to steer a middle course, namely, on the one hand, to husband the enfeebled energies of the constitution, by avoiding, as much as is in our power, depletion and lowering treatment; while, on the other hand, we refrain from the unseasonable use of any means which increase irritation and tend to produce inflammation. Yet I must add, that the consumptive invalid is always prone to suffer from real

debility; and when the period arrives of the cessation of inflammatory action, we may carefully enter on the use of tonic and restorative medicine, with a corresponding addition to the dietetic regimen. Nor are such means forbidden by the occasional symptoms of hectic irritation, which so commonly occur, care being taken to choose the interval of perfect freedom from fever for the administration of any stimulant; and the propriety of our treatment will be decided by the effects produced upon the pulse, and upon the skin. A slower circulation taking place under the influence of a tonic and restorative plan of treatment, and the surface of the body becoming uniformly cool, are sure and satisfactory proofs of its propriety; but if the pulse should increase in frequency, with renewed heat of skin, we should immediately change our measures, and have recourse to sedative medicines and a cooling diet.

"In many cases the sarsaparilla, with the alkaline liquor (Brandish's), proves decidedly useful towards amending the state of the digestive organs; indirectly, therefore, assisting the establishment of the general strength. This preparation being imperfectly caustic, is a much milder alkaline remedy than the liquor potassæ of the Pharmacopœia. I find it a very useful medicine.

"Sometimes I give the preference to the more tonic properties of the sulphate of quinine, or of decoction of bark, or infusion of cascarilla, with bicarbonate of potash and lemon juice, as an effer-

vescing draught; but I strongly disapprove of all spirituous tinctures used solely, which contain but little of the substance of the medicine, and tend to heat and stimulate in a greater ratio than to strengthen.

"On the same principle of making it our study to improve the strength, rather than increase the action of the heart and arteries, we should direct a diet that is mild and nutritious, and at the same easily digestible in its nature, and the least stimulating. In that state of debility which is unattended with inflammatory action, it is not only admissible, but even useful to administer with the food a small quantity of wine (sherry or Madeira), old and pure in quality, more or less diluted with water; or a little sound porter, from the cask (about half a pint twice a day). It appears to me that ale is too heating a beverage for persons affected with pulmonary disease.

"In many cases I am satisfied of the propriety of directing a full and highly supporting diet, always, of course, being careful to avoid any sensible oppression of the stomach and digestive powers. A good condition, for the most part, of the digestive organs, is undoubtedly one of the most encouraging circumstances in any case; as by the converse, loss of appetite, weak digestive power, and constant tendency to diarrhœa, must weaken, if not destroy, our hopes of success. As the name of the disease, Consumption, so forcibly expresses, the waste that is going on from absorption and

irritation requires a countervailing proportion of nourishment; and as a general rule, I should wish to give the consumptive invalid as much supporting food as could be comfortably digested. Such a method of diligent supply is not admissible in the mesenteric consumption of children. In that disease the direct channel through which the chyle has to pass, the mesenteric glands, is obstructed, and the purpose in view, of opposing the emaciation, would be frustrated by the attempt of full diet. The food would be an incumbrance both to the stomach and the bowels.

"Even in pulmonary consumption the plan of a highly nutricious diet may, I know, be argued against, very ingeniously, as matter of theory; and I am aware of all the arguments which are commonly used of the necessity of avoiding excitement to the circulation, of not giving much labour to be performed by the diseased lungs in the process of sanguification; but I leave this field of speculation to those who prefer hypothesis to facts, and rest my confidence securely in the happy results which follow from the diligence of a good cook and a good nurse, to prepare and administer all proper appliances, to sustain and restore the languid and emaciated invalid."

Another author, Dr. Stewart, of Scotland, who has had much experience and great success in the cure of consumption, observes, "In treating breast complaints it has long been with me a

maxim to overlook, comparatively, the idea of inflammation, except in the very first stage; and to aim gradually, prudently, and steadily, at regaining a cool, braced, and properly seasoned state of the constitution, as my first object. Many reasons incline me to suppose, that what in the progress of breast complaints is called an *inflammatory* state of the lungs, is not really so (I mean not a *real active* inflammation;) and at any rate, I know from a good deal of experience, that it yields more readily to a different mode of treatment than that commonly in use. I have likewise found, that the kind of practice which aims at overcoming this supposed inflammation, by lowering the strength in various ways, almost never fails to superinduce, in the same proportion, the most painful irritability of nerve; which at length counteracts the very end which is in view, by exposing the patients to a perpetual fever, from the most trifling causes. And, I may add, that by relaxing what is already too much relaxed, making the constitution naturally very tender and susceptible of cold, it puts it beyond our power, with all the precaution we can use, in a variable climate like ours, to prevent the frequent, and therefore dangerous, recurrence of some new irritation in the breast or throat."

My own experience amply confirms these principles of treatment, both with respect to medicine and diet, and I unhesitatingly assert that all the

ingenuity, science, and practical knowledge of medical men cannot supply a more beneficial course.

Here follows a series of prescriptions of the most successful kind, which have rewarded me with the most gratifying results in numerous instances; and I can assure patients that they may use them with the greatest confidence. I have commenced with the mildest, and gone on progressively to the strongest, according to the plan mentioned.

MIXTURE OF ICELAND MOSS OR LIVERWORT.

Take of

Iceland moss	1½ ounce.
Liquorice root, sliced	3 drachms.
Water	2 pints.

Boil it down to a pint and a half, strain it while warm, and add

Dilute sulphuric acid	1 teaspoonful.

A wineglassful to be taken three times a day, either alone or with a small quantity of milk.

The moss should first be freed from the green parts, and washed in cold water, which is, of course, to be thrown away.

Instead of the sulphuric acid, it is sometimes found more serviceable to add cayenne pepper, one drachm or teaspoonful, and tincture of myrrh, one ounce; the dose of the mixture being the same.

The species of consumption in which this decoction proves most serviceable is the catarrhal, which more particularly affects the windpipe and its terminations. The effects of the Iceland moss depend on the combination of its tonic, bitter, and demulcent properties. As a demulcent* it is certainly superior to the mucilages;† and owing to the bitter principle it contains, its decoction affords all the good effects that can be obtained from the other demulcents and the mucilages, without loading the stomach. It allays he tickling cough, as was observed when speaking of it for inhalation; relieves the oppressed breathing; involves the acrid matters contained in the stomach and bowels, which often bring on diarrhœa ond looseness; and renders more bland the whole mass of animal fluids, so as to mitigate hectic fever, while, at the same time, it tends to invigorate the digestive organs.

* Demulcents are medicines which are used to obviate and prevent the action of acrid and stimulating humours of the body, and thus render them inoffensive. Demulcents act not by correcting or changing the acrimony of these humours, but by involving or sheathing that acrimony in a mild and viscid matter, which prevents it from acting upon the sensible parts of our bodies, or by covering the surface exposed to their action.

† A mucilage is the solution of gum in water, such as the mucilage of acacia, commonly called gum arabic.

The Carragaheen moss found on the Irish coast, and thence called Irish moss, claims also great confidence for being a powerful corrective of the constitution, particularly the glandular system. Its influence extends not only to the lungs, but acts upon the glands of the mesentery, and thus enables us to attack one of the most difficult forms of consumption. In a quotation from Sir Charles Scudamore, in a preceding page, is shown the difficulty of administering a full diet to children labouring under mesentric consumption, because, as he says, the direct channel through which the chyle has to pass, the mesenteric glands, is obstructed, and the food would be an incumbrance both to the stomach and the bowels; but the decoction or jelly made from this moss will, more than any other food, nourish the body in an efficacious manner, and thus enable us to oppose that general debility and dreadful emaciation which characterise this state of consumptive patients. A decoction of it is made by boiling half an ounce in a pint and half of water till reduced to a pint, and taking a wineglass or teacupful three or four times a day; but the following plan may be also adopted, and is taken from the directions published with it:—

> Steep a quarter of an ounce of the moss in cold water for three minutes; then take it out, shake the water out of each sprig, and boil it in two pints of unskimmed milk until it attains the consistency of warm jelly. Strain and sweeten it to the taste with powdered white sugar or honey.

Consumptive persons should take a small teacupful in the morning, and at three or four intervals during the day.

For catarrhal or consumptive cough it may be used at any time when the disease is troublesome.

In chronic dysentery, or chronic looseness, the decoction, in either milk or water, may be administered with equal advantage ; and, in addition to the sweetening matter, if a teaspoonful of the tincture of rhatany root be mixed with each teacupful of it, tone will be thereby given to the intestines, at the same time that nourishment will be conveyed to the system, and irritation prevented. A large teacupful of the decoction may be taken three or four times a day.

Sarsaparilla will next come under our consideration, and as it has been frequently doubted whether or not this medicine have any efficacy in it, perhaps it may be as well to state, that the most useful, if not the only useful quality of sarsaparilla has been proved by Mr. Battley to reside in the cortical part ; and Sir Charles Scudamore states that he has long found advantage in directing this part to be used exclusively for all the forms of the medicine. The following is the form of the sarsaparilla mixture which he strongly recommends in this disease, and

which, on trial, will be found to renovate the system gradually, safely, and effectually:—

Take of

The cortical part of sarsaparilla, bruised	3 drachms.
Lime water	12 ounces.

Macerate for twelve hours, and strain; then

Take of

This strained liquor	11 ounces.
Syrup of sarsaparilla	6 drachms.
Bradish's alkaline solution	2 or 3 drachms.
Tincture of orange peel, or Compound tincture of gentian root	2 to 4 grains.
Iodide of potassum	9 to 12 grains.

Mix well together. Two, three, or four table spoonfuls to be taken twice or thrice a day, either alone or mixed with an equal quantity of hot milk. It usually agrees best in the latter way. Instead of two or three drachms of Brandish's solution, we may use about half the quantity of the solution of potash of the London Pharmacopœia, the latter being a much stronger preparation.

Sometimes the syrup of sarsaparilla in the above is found oppressive to the stomach, and may be omitted.

Cold lime water extracts rather more material than water simply, either hot or cold. Lime is

more soluble in cold than in hot water, and heat is not necessary for the solution of the extractive matter of the bruised sarsaparilla. It is important to exclude air during the maceration, to prevent the absorption of carbonic acid by the lime, and the consequent deposition of the carbonate.

Another way of making the infusion of sarsaparilla in lime water is as follows :—

Sarsaparilla root, sliced and bruised, from 6 to 8 ounces.
Liquorice root, sliced 1 ounce.
Lime water 4 pints.

Let them digest together in a covered vessel for twelve hours, during which time they should be frequently stirred and shaken. After being strained it is fit for use.

A quarter of a pint is to be taken three or four times a day. It is possessed of very strengthening qualities, and is an excellent alterative and restorative medicine. It is particularly advisable when the patient is troubled with much acidity, and other symptoms of weakness in the stomach.

The celebrated Lisbon diet drink, which was kept a secret for some time after its introduction into this country, was similar to the present compound decoction of sarsaparilla, and no doubt

was highly beneficial in many obstinate diseases. As a change of medicine is not only agreeable to the patient, but productive of good results, I will here state one of the best modes of making the compound decoction of sarsaparilla.

Take of

The root of sarsaparilla, sliced and bruised	6 ounces.
Shavings of guaiac wood.	
Liquorice root, of each	1 ounce.
Distilled water	10 pints.

Macerate for six hours; then boil it down to 5 pints, adding towards the end of the boiling 1 ounce of the bark of sassafras root, and 3 drachms of the bark of mezereon root. Strain the liquor for use, and take a quarter of a pint three or four times a day. Many have found it an admirable corrective of the system and restorative.

As another mild stomachic mixture, highly proper to be taken when the patient's cough and expectoration have been relieved by inhaling, I have seen very excellent effects from the following combination:—

Take of

Diluted hydrocyanic acid of the London Pharmacopœia	6 minims.
Decoction of Peruvian bark	6 ounces.
Mixture of sweet almonds	3 ounces.
Spearmint water	1½ ounce.

Mix, and take three tablespoonfuls three times a day.

In making the decoction of bark (the second article in the above), care should be taken not to boil longer than ten minutes, to be done in a *close covered* vessel, and the liquor to be strained while hot; for, if suffered to stand still cold, the most efficacious part of the bark (the resin) will subside. The vessel also being covered, the volatile and active properties cannot escape by boiling.

The proportion of bark for making the decoction is one ounce to a pint of water; and we may use either of the three species,—the pale bark, called also the quilled bark; the yellow bark; or the red bark. The respective terms in Latin are, the cinchona lancifolia, the lance-leaved; cinchona cordifolia, the heart-leaved; and the cinchona oblongifolia, the oblong-leaved. The trees grow wild in the hilly parts of Peru. The bark is stripped from their branches, trunk, and root, and dried. It is from the yellow bark that quinine is obtained.

Bitter almonds are frequently employed for making the mixture or the emulsion (the third article in the above), on account of containing a small quantity of hydrocyanic acid, but as there is a certain proportion of this acid ordered in the medicine, sweet almonds are in this instance to be preferred.

The almond mixture or emulsion is made as follows :—

Take of

Almond confection	2½ ounces.
Water..	1 pint.

Gradually add the water to the almond confection, rubbing them together till properly mixed; then strain for use.

The almond confection may be bought ready at the druggists'. It will keep good for a considerable length of time; but if we wish the remedy above mentioned to be prepared from fresh articles each time (which will undoubtedly be better and more satisfactory), we may make the emulsion in the following manner :—

Take of

Sweet almonds	6 drachms.
White sugar	2 do.
Water	1 pint.

First blanch the almonds by infusing them in boiling water, and afterwards peel them; beat them well in a marble mortar, with the sugar, to a smooth pulp, then add the water by degrees, and continue the rubbing till they are well blended, when the mixture is to be passed

through fine muslin for use. Great care should be taken that the almonds are free from any rancid taste.

Almond emulsion is the most valuable medicated beverage we possess in pleurisy, recent coughs, and pulmonary consumption. It may be esteemed as both medicine and diet, for it not only quiets the system, but also nourishes it.

It is generally known that medicines which agree well with some people will not suit others, and it is frequently necessary to make a complete change of remedies, always, however, keeping in view the specific object for which the prescription is wanted. As rather a stronger tonic and stimulant than the preceding, I advise the adoption of the following mixture. It is a combination which will agree with almost every one, and communicates great benefit to the system:—

Take of

The infusion of cascarilla bark	6 ounces.
Tincture of Calumba	1½ ounce.
Compound tincture of cardamoms.. ..	½ ounce.

Mix, and take a wineglassful three times a day.

As a general remedy for imparting strength when no feverish or inflammatory symptoms are

present, I have found extraordinary benefit from the following:—

Take of

Compound decoction of aloes	3 ounces.
Compound mixture of iron	4 ounces.
Compound tincture of cardamoms	4 drachms.
Compound tincture of senna..	4 drachms.
Oil of peppermint	5 minims.

Mix them together, and let a tablespoonful be taken twice or thrice a day.

In cases where the appetite is bad, this mixture soon operates a great improvement, and puts a healthy colour on the countenance. It is particularly adapted to those young females who are suffering from causes mentioned under the article hoarhound, in page 49, to those who are afflicted with fluor albus or whites, or to those who are attacked with an immoderate flow of the menstrual discharge. Hysterical females, and delicate nervous persons of both sexes, who are of a pale languid constitution, and who labour under debility of the digestive organs, constipation, &c., will find it a valuable medicine.

Quinine has proved itself a sovereign remedy in countless cases, and claims a prominent place in the treatment of this wasting disease. I will

here subjoin three formulæ for mixtures, either of which will confer permanent benefit:—

Take of

Sulphate of quinine	from 6 to 12 grains.
Tincture of orange peel..	6 drachms.
Syrup of orange peel	6 drachms.
Diluted sulphuric acid	from 30 to 40 minims.
Water, to make up, ...	½ pint.

Mix together, and let a sixth part, from a graduated bottle, be taken twice or thrice a day.

Take of

Sulphate of quinine	from 6 to 12 grains.
Compound tincture of bark	6 drachms.
Syrup of orange peel..	6 drachms.
Aromatic sulphuric acid	30 minims.
Infusion of roses	6½ ounces.

Or to make up half a pint.

Mix; a sixth part to be taken twice or thrice a day.

Take of

Sulphate of quinine	8 grains
Compound tincture of gentian	1 drachm.
Oil of peppermint	5 minims.
Diluted sulphuric acid	10 minims.
Water to make up	½ a pint.

Let them be mixed together, and take a table spoonful three or four times a day.

Any one of the three preceding is eminently calculated to restore the strength, when the patient's cough, difficulty of breathing, expectoration, and night sweats, have been relieved by inhaling. The last formula is one of the best that can be prescribed in cases of bad appetite. But even this excellent article (quinine) will not suit all, for in some few it produces the contrary effect of strength, causing weariness, lassitude, loss of appetite, &c. These cases, however, are rare.

If the form of pills be preferred by any patient, I advise any of the following:—

Take of

Sulphate of quinine	2 scruples.
Powdered camphor	1 scruple.
Aloetic pills with myrrh	1½ drachm.
Syrup of Ginger	as much as is necessary.

Make into 40 pills, and take one twice or three times a day.

Take of

Sulphate of quinine	24 grains.
Powdered rhubarb	1 drachm.
Extract of sarsaparilla	½ drachm.
Mucilage of gum arabic ..	as much as is necessary.

Let 24 pills be made, of which one is to be taken three times a day.

Take of

Sulphate of quinine	12 grains.
Powdered rhubarb	36 grains.
Calomel	3 grains.
Syrup..	a necessary quantity.

Make twelve pills, and take one twice a day.

Take of

Sulphate of quinine	12 grains.
Extract of gentian	1 scruple.
Compound rhubarb pill	2 scruples.
Blue pill	from 6 to 8 grains.

Twelve pills are to be made, of which one is to be taken twice or thrice a day.

The blue pill is very effectual in removing glandular obstructions, and this last formula is on that account very much to be recommended. To those unacquainted with medicines it may just be observed, that it is a mercurial pill, merely taking its name from the colour. The proportion here ordered is very minute, being only half a grain in each pill, whereas the common dose is four, five, or six grains a day. There is, therefore, very little chance of its affecting the gums of patients in general; but as some persons are of so peculiar a constitution that mercury in any shape or dose, however trifling, produces soreness of the gums and mouth, it ought to be stated that it is necessary to discontinue the medicine immediately on the appearance of these

symptoms; the effect will then go off, and no inconvenience be felt. The same observation applies to the last formula but one, in which calomel, another preparation of mercury, is introduced, but also in a very small proportion.

There is another preparation, the essential salt of bark, which I was first induced to try on the recommendation of an eminent practitioner, and have found, in many instances, to be far superior to the quinine. It may be used in all cases in which the use of a tonic is indicated. The quinine contains only the bitter principle of the bark, a principle which, in elderly or weakly people, like all other intense bitters, reduces the energy of the stomach, and thereby increases the general debility of the system. But the essential salt contains *all the active principles* of the bark in a state of great concentration, and is also pleasant to the palate. Ten grains of the essential salt are equal to a drachm of the bark in substance.

Two forms of mixture are here given, both of which are very excellent as restoratives of the debilitated powers.

Take of

The essential salt of bark	1 drachm.

Dissolve it in

Camphor mixture	6 ounces.

Then add

Aromatic spirit of ammonia	2 drachms.
Compound spirit of lavender	3 drachms.

Mix. Two tablespoonfuls are to be taken three

or four times a day.—It is extremely valuable in excessive irritability of the system.

Take of

The essential salt of bark	1 drachm.

Dissolve it in

Distilled water	half a pint.

Then add

Tincture of ginger	1 drachm.
Tincture of chamomile flowers	1 drachm.

Mix, and take two or three tablespoonfuls three times a day.

Tincture of chamomile flowers is not yet introduced into the Pharmacopœia, but it may be made by any druggist by macerating for seven days two ounces of the dried flowers in one pint of proof spirit, and afterwards straining it off for use.

Other articles may be added to the above, according to the state of the system; thus, for instance, if acidity prevails in the stomach, put in a drachm of carbonate of soda or of magnesia; or if costiveness be present without acidity, add two or three drachms of Epsom salts.

According to my usual plan, I wish to consult the inclinations of patients as much as possible,

and therefore will provide them with a form for pills if they prefer it:—

Take of

The essential salt of bark	1 drachm.
Powdered rhubarb	1 scruple.
Gum galbanum	1 drachm.
Syrup	sufficient for the mass.

Make it into 36 pills. Two or three may be taken twice a day.—Or

Take of

The essential salt of bark	2 drachms.
Dried subcarbonate of soda	half a drachm.
Oil of carraway seed	10 minims.
Syrup	sufficient for the mass.

Make it into 36 pills, and take two or three twice a day.

With some patients I have found the following mixture superior to all those which I have hitherto mentioned. It appears possessed of the most renovating qualities, and will frequently invigorate, in a surprising manner, the constitutions of those who are in a very weak and ailing condition. Hundreds are indebted to it for the prolongation of life and health, who could derive advantage from no other medicine. Its benefits are very

apparent at those periods when great weakness is felt in the system after more profuse expectoration than usual, arising from the softening of fresh tubercles in the lungs; for at those times this mixture communicates the most decided support, and sustains the patient under the debilitating effects of the suppurative process. It was first pointed out to me in some medical author by a friend:—

Take of

The *pale* Peruvian bark	1 ounce.
Fresh lime	½ ounce.

Mix them together, and pour upon them, in an *earthen* vessel,—

Cold water	1½ pint.

Let it stand three hours, then strain off the liquor, and add to it—

Tincture of bark	2 ounces.
Sweet spirit of nitre	3 drachms.
Syrup of orange peel	1 ounce.

Mix together well, and take a wineglassful or a teacupful three times a day.

The person who makes up this medicine must be particular in using an *earthen* vessel when he pours the water on the bark and lime; also to use the purest sweet spirit of nitre, for if an acid prevails in the combination, the peculiar medical virtues of the lime are destroyed.

I have directed the pale bark because it is not quite so bitter as the other two species, but either of the others may be used. The red bark has been considered superior to the pale; and the yellow is represented, apparently with justice, as being more active than either of the others.

The effects of Peruvian bark are those of a powerful and permanent tonic, so slow in its operation that its stimulating property is scarcely perceptible by any alteration in the state of the pulse, or of the temperature of the body.

THE STATE OF THE BOWELS.

Great attention must be paid to the state of the bowels in every stage of consumption—the intention being to keep them regular without purging. As different individuals will require different remedies, I shall set down several forms of powders, draughts, pills, and mixtures, that a choice may be made according to circumstances.

For young persons scarcely any thing can exceed a combination of rhubarb and supersulphate

of potash in equal parts. Thus, for children of five or six years of age, who have enlarged bellies, arising from obstruction in the mesenteric glands, hectic fever, &c., give as follows:—

Take of

The best rhubarb in powder,
Supersulphate of potash, of each from 6 to 8 grains.

Mix them together for one dose, and take them in any manner that is most agreeable, every other morning, or in obstinate cases, every morning.

For adults 12 or 15 grains of each may be used as a dose, and to children of one or two years old, about 3 grains of each.

Sir William Fordyce originally prescribed this, and is of opinion that it will almost perform miracles. A grain or two of calomel added to each dose will quicken its operation, and thus make it more efficacious, but, in general, it is not necessary.

The following is another powder deserving of confidence:—

Take of

Jalap in powder	..	from 12 grains to 2 scruples.
Best ginger, ditto	..	from 4 to 16 grains.
Calomel ..	..	from 2 to 8 grains.

Mix, and divide them into three papers, one of which may be taken every other night, or only when necessary.

The smallest quantities are suitable for children of two years old; and, from this, it will be necessary to increase the dose with the age.

With regard to pills, perhaps nothing can be more generally applicable, or deserving of stronger recommendation, than the compound rhubarb pill of the London pharmacopœia. It is composed of rhubarb, socotrine aloes, myrrh, soap, and oil of carraway; thus being a warm, stomachic laxative, very useful for obviating costiveness, and, at the same time, giving tone to the bowels. It is particularly applicable to those who have very weak bowels, and find a difficulty in procuring any aperient medicine sufficiently mild. Two or three of these pills, containing four grains each, may be taken at bed-time, when necessary.

Another form of similar ingredients, but of different proportions:—

Take of

Powdered rhubarb	15 grains.
Powdered myrrh	15 grains.
Extract of aloes	6 grains.
Extract of chamomile flowers	half a drachm.
Oil of cloves	3 minims.

Mix, and divide into 20 pills, two of which may be taken at any time when necessary. They form an excellent pill to prepare the stomach for dinner, when taken an hour before that meal.

The following pills, in costive habits, preserve their operative effect very steadily, and for a great length of time.

Take of

Extract of aloes	1 scruple.
Powdered ginger	half a drachm.
Powdered ipecacuanha	8 grains.
Syrup, as much as is sufficient.	

Mix, and divide into 16 pills. Take two when necessary.

I will here give the form preferred by Dr. Wilson Philip:

Take of

Compound extract of colocynth	2 scruples.
Powdered ipecacuanha	4 grains.
Castile soap	1 scruple.

Divide into 12 pills, two or three to be taken as a dose, according as required.

Different aperients (says Dr. Wilson Philip) suit different constitutions, but none can be found employed for the purpose of supporting a *regular* action of the bowels so generally useful as these pills; which, taken singly, or *one* at a time, possess the double property of gently exciting the bowels, and, at the same time, of materially promoting digestion. The dyspeptic and the

habitually costive, will refer in vain to the pharmacopœia, or the physician, for a milder, safer, or more *effective* aperient medicine.

Ipecacuanha powder considerably promotes the operation of an aperient medicine when added to it, and proves very beneficial in dislodging slime, a common cause of obstinate constipation, both in children and adults. For weakly persons, such medicines are best taken in the morning, because the ipecacuanha powder taken at night is very apt to excite perspiration to such an extent as to increase the general debility or relaxation of the system.

When a stronger purgative is wanted we may combine a little calomel with the other articles as follows:

Take of

Compound extract of colocynth	1 drachm.
Calomel	15 grains.
Oil of caraway	4 minims.

Mix, and divide into 24 pills. Two or three when necessary. They are very efficacious.

The following are some of the best forms for draughts;—they are commonly called black draughts:

Take of

Tincture of julap	Half a drachm.
Compound tincture of lavender ..	Half a drachm.
Epsom salts..	2 drachms.
Infusion of senna, to make it up ..	1½ ounce.

To be taken at the first of the morning, an hour before breakfast.

Take of

Tincture of rhubarb	2 drachms.
Compound tincture of lavender	1 drachm.
Infusion of senna	to 1½ ounce.

To be taken like the last.

Take of

The best manna	1 drachm.
Epsom salts	2 drachms.
Cinnamon water	2 drachms.
Infusion of senna	to 1½ ounce.

To be taken like the last.

When there are symptoms of colic, spasms in the bowels, &c., the following is an admirable remedy:

Take of

Compound tincture of senna	½ ounce.
Tincture of rhubarb	2 drachms.
Tincture of henbane	40 minims.
Syrup of buckthorn	2 drachms.
Peppermint water	6 drachms.

To be taken as before.

The following was the common old form of black draught:

Take of

Epsom salts	4 drachms.
Tincture of senna	1½ drachm
Syrup of ginger	1 drachm.
Aromatic spirit of ammonia	20 minims.
Infusion of senna	to 1¼ ounce.

To be taken as the others.

APERIENT MIXTURES.

Take of

Tincture of senna	1 drachm.
Wine of aloes	2 ounces.
Syrup of ginger	1 ounce.
Peppermint water	3 ounces.

Mix, and take two tablespoonfuls every three hours till it operates.

Take of

Senna leaves	2 drachms.

Infuse in a quarter of a pint of boiling water for half an hour; then strain, and add

Epsom salts	½ ounce.
Compound tincture of senna	1 ounce.

Three tablespoonfuls to be taken every two or three hours till it operates.

This mixture is more certain in its operation than the usual opening medicines.

Take of

Tartrate of potash	4 drachms.
Best manna	1½ ounce.
Tincture of senna	½ ounce.
Infusion of senna	4 ounces.
Cinnamon water	1½ ounce.

Mix, and take two tablespoonfuls when necessary.

The aperient mixture to which Mr. Abernethy was so partial is the following, a dose of which he generally ordered to be taken before breakfast, two or three grains of the blue pill having been taken the preceding night.

Take of

Epsom salt	half an ounce.
Best manna	2 drachms.
Infusion of senna	6 drachms.
Compound tincture of senna	2 drachms.
Spearmint water	1 ounce.
Distilled water	2 ounces.

Mix, and take from one to four tablespoonfuls for a dose.

Castor oil is an excellent aperient, applicable to most cases. To render this less nauseous to the taste, and to make it sit more easy on the stomach, add to it the compound tincture of senna in the proportion of one to three parts of the oil. Mix them well by shaking them together in a phial. The common dose of the oil is a tablespoonful, but many require double that quantity.

TO OBTAIN SLEEP.

The necessity of obtaining a proper proportion of sleep at night is apparent, for there are so many

circumstances to harass the patient during the day (as irritative cough, febrile excitement, &c.) that without sleep the general debility of the system would be fearfully augmented. But, happily, we can obviate this evil in most cases, by the employment of morphine. Any one of the following formulæ will produce the desired object :

Take of

Acetate of morphine	2 grains.
Simple syrup, by weight	half a pound.

Mix well, and take, at bed time, two, three, or four teaspoonfuls for a dose, according to the age of the patient and degree of irritation or pain which it is intended to subdue.

This is the formula of the celebrated M. Magendie, of Paris, and is generally used in France for the restlessness of children, instead of the syrup of white poppies.

Take of

Acetate of morphine	3 grains.
Extract of henbane	half a drachm.

Make into nine pills, and take one at bed time. If one pill should not succeed, a second may be taken. It will not in the least cause headache in

the generality of patients, as an after effect, like opium or laudanum; nor will it disorder the nervous system, or constipate the bowels.

The usual dose of acetate of morphine is from one-sixth to one-half of a grain. Each of the above pills contains one-third of a grain, which, therefore, is a medium dose.

Take of

Extract of henbane..	1 scruple.
Extract of hemlock..	12 grains.
Acetate of morphine	2 grains.

Mix, and divide into twelve pills. Two may be taken for a dose, being equal to one of the last kind.

Take of

Hydrochlorate of morphine..	5 grains.
Extract of hemlock..	1 drachm.

Make into twenty pills, one of which may be taken at bed time, and repeated, if necessary, in four hours.

The dose of hydrochlorate of morphine is from one-fourth to one-half of a grain. Each pill here contains one-fourth of a grain.

The hydrochlorate of morphine is preferred by many to the acetate, on account of its more

definite strength, and owing to its exciting less perspiration. It is also much less subject to decomposition than the acetate.

Greater doses than the above should not be taken, except under the eye of a medical man, as it is one of our most powerful narcotics.

But morphine occasionally disagrees with some constitutions, producing a species of nervous excitement and irritation, with a total inability to sleep, and a depression of spirits truly lamentable; in which case the following draught is to be used:—

Take of

Solution of the acetate of ammonia	3 drachms.
Syrup of tolu	1 drachm.
Laudanum	from 15 to 20 minims.
Mucilage of gum arabic	1 ounce.

To be taken at bed time. It is better to have two or three in readiness, that it may be repeated at intervals of four hours, if necessary.

Or the following pills:—

Take of

Camphor	16 grains.
Nitrate of potash	1 scruple.
Extract of henbane	16 grains.
Syrup of poppies	sufficient for the mass.

Make into twelve pills, three of which may be taken at bed time.

These pills are an excellent substitute for opium to those persons with whom the latter disagrees.

SPITTING OF BLOOD (HÆMOPTYSIS).

A discharge of blood from the lungs is a very common attendant on consumption, and our object must be not only to moderate the hemorrhage at the time, but, if possible, to prevent a return of it in future. It may be distinguished from the discharge which takes place from the stomach by being of a florid red colour, mixed with a little *frothy mucus only*. It is usually preceded by a saltish taste in the mouth, by a difficulty of breathing, and a pain or sense of tightness across the chest, and is brought up by coughing. That which is discharged from the stomach is generally in much greater quantities, of a *darker* colour, more coagulated or clotted, mixed with the other contents of the stomach, and is *unattended* by any cough.

Unless the discharge of blood from the lungs be excessive it is seldom attended with immediate danger to life, but it is, nevertheless, a symptom which requires prompt attention, to prevent further evil consequences.

This symptom is to be combated by giving first a cooling purgative, as

Take of

Epsom salts	6 drachms.
Compound tincture of senna	6 drachms.
Infusion of roses	7 ounces.

Mix, and take a wineglassful every hour till the bowels are properly relieved; after which it will be necessary, where the flow of blood is considerable, to give an astringent medicine, in order to stop it as soon as possible; therefore

Take of

Infusion of roses	1½ ounce.
Alum	10 grains.
Sulphate of zinc	½ a grain.
Laudanum	10 minims.
Simple syrup	1 drachm.

Mix for a draught, and take it every fourth hour.

If this is not sufficiently efficacious, we may have recourse to the acetate of lead (commonly called, from its sweet taste, the sugar of lead), which is a very powerful medicine, especially

combined with opium, and should always be resorted to in alarming or obstinate cases, as

Take of

Acetate of lead	from 9 to 12 grains.
Opium	3 or 4 grains.
Confection of roses	a sufficient quantity.

Mix, and form six pills; one to be taken every fourth or sixth hour.

Digitalis or foxglove is also an excellent remedy, particularly where the pulse is very quick, from its sedative influence on the heart and arteries. It may be combined with the acetate of lead, as in the following draught:

Take of

Infusion of digitalis	6 drachms.
Acetate of lead	1½ or 2 grains.
Laudanum	8 minims.

This draught is to be taken every six hours, till the flow of blood abates.

A laxative must be administered now and then, to prevent the astringent medicine having too constipating an effect. Castor oil is very proper in such cases.

I have, in many obstinate cases of spitting of blood, acted upon the suggestion of Dr. Rush,

and given a tablespoonful of common salt, and it has completely succeeded after the failure of all other means.

In this complaint, a low diet, consisting principally of animal jellies, should be strictly observed, and much exercise, particularly of the lungs, must be avoided. All kinds of animal food, and fermented liquors must be forbidden: the most proper drink being chiefly barley-water.

When spitting of blood occurs, the process of inhalation must be laid aside till it is overcome, as it is too stimulating in its effects, and would increase the malady.

After the cessation of the attack, strengthening medicine will be necessary to restore the exhausted state of the patient, and he can take any of the mixtures of quinine given in page 92, or those of the essential salt of bark, in pages 95 and 96.

DIARRHŒA, OR LOOSENESS OF THE BOWELS.

This is a very distressing affection in consumptive cases, and wears out the patient to a serious extent, often proving very obstinate. When imprudently checked by astringent medicines, it is generally succeeded by cough and other unpleasant symptoms. We ought, therefore, instead of

restraining it altogether, to moderate it by a suitable medicine; and the following may at first be made trial of:—

Take of

Lime water*	6 ounces.
Compound tincture of cardamoms ..	½ an ounce.
Laudanam	30 drops.
White sugar powdered	2 drachms.

Mix: Two or three table-spoonfuls to be taken three or four times a-day.

This may not be sufficiently powerful, therefore if it continue obstinate,

Take of

Compound powder of chalk	2 drachms.
Powdered gum arabic	3 drachms.
Laudanum	20 minims.
Cinnamon water	6 ounces.

Mix, and take two tablespoonfuls three or four times a day, or after each liquid motion, till the purging ceases.

* Lime water is generally made thus:—

Take of

Quick lime	1 ounce.
Boiling water	1½ pint.

Mix, and set them aside in a *covered earthen* vessel for one hour; then pour off the clear water, and keep it in a bottle well corked for use.

Or,

Take of

Tincture of catechu	6 drachms,
Laudanum	1½ drachm.

Chalk mixture to make up half a pint.

Mix, and take two tablespoonfuls after each liquid motion till the purging is considerably removed; then decrease the quantity gradually, to prevent it having too constipating an effect. I have scarcely ever known this medicine fail.

The patient should use as nourishing a diet as the stomach will allow. It may consist of arrow-root, pearl barley, sago, rice boiled with milk, good gruel, beef-tea, mutton, lamb, &c., and he may take small quantities of brandy and water, or port wine and water. Unripe fruit, vegetables, and all food difficult of digestion must be avoided. Cold and damp must be carefully guarded against, and flannel should be worn next the skin.

HECTIC FEVER.

The general symptoms of this affection are those of a low or slow fever; it commences insidiously, and is often not suspected for some months,—the only symptoms noticeable being las-

situde upon slight exercise, gradual loss of appetite, and a wasting of the flesh. This fever, when established, returns every day with noon and evening accessions. In the morning there is a considerable *remission*, but never *intermission*. It is for the most part attended with night perspirations, and, from the first, the urine is high coloured, and deposits, on standing, a copious branny-red sediment. The pulse is greatly increased in rapidity, being seldom less than 100, generally 120 or 130.

It is to be observed that this is a very different species of fever from that which attends the commencement of the disease. Instead of slight rigors, the shivering often amounts to ague, which is followed by increased heat, and a long and copious perspiration.

The following has produced very beneficial results:—

Take of
Opium 1 drachm.
Dissolve it in
Nitric acid 1¼ ounce.

Let it be done in an open vessel, such as a tea-cup, to allow the nitrous fumes to escape.

According to the condition of the system, twenty, thirty, or forty drops of this are to be given three times a day in a glass of water.

When it proves too narcotic in its action, a smaller quantity of opium must be employed in making it, or the dose taken must be diminished; but a sufficient quantity of opium must be received into the system, so as to calm the hectic irritation. The acid at the same time imparts strength.

But some constitutions cannot bear the least portion of opium, and other means must be adopted. When thus circumstanced recourse may be had to sarsaparilla, which has, in many instances, proved serviceable; in fact, several cases of hectic fever have been cured by it. Every thing depends upon having the genuine article. The decoction and the powder are the best preparations of it. Two or three modes of making the first will be found in this work at page 85, &c., and with regard to the powder, it may be taken in the dose of from one to two drachms, twice or thrice a day, in common water or cinnamon water; but in some cases the powder will not agree, producing sickness and diarrhœa. The use of the bark should be persevered in for a considerable time whatever preparation is made use of; and a diet that is easy of digestion, and at the same time nourishing, should be adopted. It should be taken frequently, and in small quantities at a time. Regular hours and gentle exercise are also auxiliaries of great importance.

The inhalation of sulphuric æther, according to the plan laid down under the head of asthma, very sensibly abates the hectic fever, and

checks the night perspirations. It also greatly improves the smell, colour, and qualities of the expectorated matter.

NIGHT PERSPIRATIONS.

These are sometimes very excessive, depending (as Sir Charles Scudamore justly observes) on the tubercular irritation, and forming a part of the hectic fever. They take place in the highest degree at that period when tubercles begin to undergo the softening process. Consequently a rational and permanent remedy is to be looked for only from inhalation, for by this means alone can remedies be introduced to the tubercles themselves which will exert a curative influence upon them. Hence we see the absolute necessity of carrying this treatment throughout in every shape and stage of the disease, except when inflammatory action is present, or spitting of blood supervenes; for as the general disease shows itself forth in such a variety of symptoms, all these symptoms must be increased or diminished, according as the constitutional derangement is more or less brought under the power of the remedies employed. We may, however, at the same time derive assistance from general means of treatment, such as bathing with astringent lotions, avoiding unnecessary clothing, and too great a

quantity of relaxing drinks. Simply bathing with vinegar and water will effect great relief, using one part of good vinegar to three, four, or five parts of water. Make it just lukewarm, then dip a towel into it, and wash the chest, the upper part of the back, and the arm pits well with it every night and morning. It is very refreshing. Friction should be then employed for some minutes afterwards by means of a flesh-brush or a coarse towel, its efficacy being thus much increased.

Sir Charles Scudamore advises the following lotion, which is to be used precisely in the same manner:—

Water	2 parts.
Eau de Cologne	1 part.
Vinegar	1 part.

As internal medicine, the acids, both mineral and vegetable, are sometimes very serviceable. They are powerful sedatives, and at the same time are refrigerant; that is, they possess the property of reducing the temperature of the body or of the blood. The following are proper forms for these medicines:

MIXTURE OF SULPHURIC ACID.

Diluted sulphuric acid ..	from ½ to 1 ounce.
Distilled water	21 ounces.
Simple syrup	2 ounces.

Mix, and take a wineglassful at bed time. It

may also be taken (if needful) two or three times during the day.

This acid should be sucked through a quill, to prevent its injuring the enamel of the teeth, and the mouth should be well washed after each dose. No medicine, internally taken, has hitherto been found superior to it in checking this symptom. The following excellent formula for its exhibition is recommended by Mr. S. Cooper, in his "First Lines of the Practice of Surgery:"

Take of

Spearmint	1½ ounce.
Conserve of roses	2 ounces.
Boiling water	1 pint.
Diluted sulphuric acid	3 drachms.

Macerate for one hour, then strain it off, and take a wineglassful every sixth hour.

MIXTURE OF MURIATIC ACID, NOW CALLED HYDROCHLORIC ACID.

Take of

Hydrochloric acid	1 drachm.
Distilled water	14 ounces.
Simple syrup	2 ounces.

A wineglassful is to be taken three or four times a day; or at night only, if it prove sufficient.

MIXTURE OF NITRIC ACID.

Take of

Diluted nitric acid	.. from 1½ drachm to	2 drachms.	
Distilled water		14 ounces.	
Syrup		2 ounces.	

Mix, and take a teacupful twice or thrice a day, or perhaps only at night, as above.

This acid in particular is very useful when the patient is affected with indigestion, disease of the liver, frequent sickness, deficient appetite, costiveness, &c., for it exerts a very salutary influence on the stomach.

In medical language the term "mineral acids" is applied more particularly to the sulphuric, hydrochloric, and nitric, although several others are derived from the mineral kingdom. The following one (the acetic acid) is, of course, derived from the vegetable kingdom:

MIXTURE OF ACETIC ACID.

Take of

Acetic acid		2½ ounces.
Infusion of cascarilla		5 ounces.
Syrup of marshmallows		½ ounce.

Mix, put it into a graduated bottle, and take the sixth part three or four times a day.

Lemon juice (from which the citric acid is formed) taken in large quantities, is a good

remedy for night sweats, and for consumption generally, and has been known to recover many who were in a very advanced stage. The contents of three or four lemons may be sucked during the day.

Some persons derive much benefit in night perspirations, from taking at bed time from six to eight or ten grains of the compound powder of ipecacuanha.

As a remedy for the chills and flushes of heat, which are so characteristic of this state, the most effectual remedy is a galbanum plaster, applied all along and over the spine, from the neck to the loins. It ought to be about fifteen inches long and four inches wide. The degree of comfort, as well as benefit, which it conveys to consumptive patients is very great, and it should never be omitted.

The word perspiration conveys a very feeble idea of the sweats which take place; for (as an acute writer of the present day observes) the body is not merely bedewed with them, but actually wet. Drops of perspiration, like drops of water, ooze from the pores of the skin, and in some instances roll from the body almost in a stream, so that, towards morning, the personal clothing and the bed linen are completely saturated with moisture: the chest in particular is subject to this excessive perspiration; and in cases where the disease presents itself without any aggravated symptoms, the patient constantly complains of

awaking with his breast and shoulders damp and moist. Of all the general signs, diagnostic of consupmtion, not one is so constant or confirmatory of the disease as the night sweats.

I shall now mention a few other remedies and plans that have gained supporters at different periods, and been highly applauded for their efficacy, not merely in alleviating but in curing consumption.

About twenty years ago, Dr. Hereford, a physician of Boston, in North America, published several cases of great and general emaciation from diseased lungs, which he had cured entirely by the ash-coloured ground lichen or liverwort *(Lichen Caninus of Linnæus, not the Lichen Islandicus)*. This is apparently a mild and simple vegetable, but has undoubtedly great power in this formidable disease, as there is every reason to believe from the testimony of many impartial practitioners both in this country and America. From not having employed it myself in any consumptive cases, I cannot, of course, add my personal testimony, but from the known efficacy of the Iceland, Ceylon, and Carragaheen mosses, I have no doubt that the *Lichen Caninus* is possessed of the properties ascribed to it. They state that it allays irritation in the windpipe and

lungs, facilitates expectoration, diminishes arterial and nervous excitement, promotes digestion, and, in some instances, has clearly obviated costiveness. Either an infusion or a decoction of it is used. The former is made by steeping two ounces of the plant in a pint and a half of boiling water, for six or eight hours, during which time it should be shaken, or stirred up with a spoon, about every two hours. A wineglassful of it should be taken four or five times a day. The decoction is made by boiling two ounces in a pint and a half of water till reduced to a pint; the same quantity as of the infusion to be taken.

Its use is soon attended with the most positive benefit. Cough, expectoration, and discharge of blood ceases in two or three weeks. The appetite returns, the general health improves, and the patient gains flesh and strength rapidly. By perseverance in the medicine, every symptom of pulmonary disease vanishes, and such a change takes place generally (according to the accounts of those who have tried it), that it astonishes all who witness its effects.

A description of this plant may, perhaps, prove acceptable. It is the largest and most common of its tribe; it grows on the ground, on heaths, dry pastures, stony places, hedges, and woods, and has a weak, faint smell. The leaves are a span long, and from one to two inches broad, widening as they grow out—they are of a grey, dull, dirty green, and roundish, but deeply notch-

ed, so as to divide the leaf into three lobes, with a round, slender stem, varying in length from about two inches to three or four, of a slight purple cast. This, as well as the leaf itself, is a little downy; but, in addition to this, the leaf is beset with fine, short hairs, somewhat stiff. The roots are white fibres. On chewing the leaf, there is nothing remarkable in the taste, except a slight degree of pungency and astringency, which it imparts to the mouth after chewing it some time. The infusion is rather pleasant than otherwise. This species of lichen possesses a mild astringency, and a peculiar bitter principle, which seems to penetrate into the substance of the palate or tongue, and is also mucilaginous. Although it produces an astringent sensation on the organ of taste, it does not constipate the bowels. It has been celebrated as an antiscorbutic, and is evidently an expectorant.

It may be procured of the principal herbalists, Covent Garden Market, to whom I should advise all who may wish to give it a trial to apply, as persons in general will not take the trouble to select the proper species, some of them selling the Iceland liver wort for it, and others a different kind.

Most persons are aware that brandy and salt were, a few years ago, extolled as a remedy for

almost every disease, both internal and external, and it is said that even cases of Pulmonary Consumption were cured by it. I will not venture to say that this is impossible, because there are many points respecting the *manner* in which substances act upon the human frame, that we are quite ignorant of—they are at present concealed from our view, and must be brought to light by future researches; but it appears to me a dangerous remedy in this disease, for the brandy must certainly drive on the circulation of the blood too rapidly for the already debilitated lungs to endure. It must be remembered that, in consequence of tubercular deposits in the substance of the lungs, the blood of the right ventricle of the heart cannot find a ready passage through the lungs; and the obvious consequence is, a preternatural quantity of this fluid in the adjoining auricle, and especially in the two great veins opening into it. Consequently, by the increased velocity which the alcoholic stimulus gives to the blood, impeded as this fluid already is in its free course, by the partial destruction of the pulmonary tissue, *venous* congestion and bursting of the tender vessels takes place, which makes the mischief worse; and diseased deposits are formed, which ulcerate the lungs and extend much further the injury which the remedy was intended to heal. This is a very different thing from the gentle stimulus imparted by a little wine, which I advocate in most cases; for the

brandy, instead of being made less deleterious, from its admixture with the salt, is actually rendered *more so.* This will appear evident, by considering that brandy is composed of about equal parts of alcohol and water, and coloured with burnt sugar. Now, it will be found that salt will not unite with pure alcohol; but when six ounces of salt are mixed with what is called the best French brandy, as directed for the employment of the remedy, about one ounce of the salt is dissolved in the water of the brandy, and five ounces of the salt sink to the bottom of the bottle, depriving the brandy of *two* ounces of water, which is absorbed by the salt, making the brandy so much the stronger.

If the salted brandy be poured clear off, according to the directions accompanying the remedy, and distilled, the pure alcohol will first be drawn off, divested of the salt, which is left with the water.

If the salt water remaining be put into a vessel, and evaporated over a lamp or in an oven, all the salt will be left, with the little addition of the colouring matter, without any change, fully proving that no chemical change has taken place, either in the alcohol, the salt, or the water.

I respect the motive by which Mr. Lee, the discoverer of the remedy, was influenced; but I think its adoption has in many cases aggravated fearfully the symptoms of disease, and that, in a moral point of view, it may also have been at-

tended with evil consequences, as inducing many to cherish a habit of drinking ardent spirits.

As an external application in cases of gout and rheumatism, scrofulous tumours, scorbutic affections, ulcerated surfaces, &c., I have no doubt it is calculated, in conjunction with other remedial measures, to do good; but beyond this it is, in the long run, an enemy in disguise.

In the "Edinburgh Medical and Surgical Journal" for January, 1840, an account was given of sea salt (chloride of sodium) being employed for curing consumption. It was first made trial of by a French surgeon, M. Amede Latour, who having heard of its great efficacy among the lower animals confined in menageries, concluded that it would succeed in the human subject. Nor was he disappointed, for in three cases in which it was administered it was followed by the happiest results. In one of the cases the disease had gone so far that there was purulent expectoration streaked with blood, great emaciation, hectic fever, &c., and yet the patient made a perfect recovery at the end of a few months, the sea salt having been given uninterruptedly for sixty days.

The mode of administration of the salt is as follows:—Half a drachm to a drachm of the chloride of sodium is administered daily, either in a glass of beef tea, or in some pectoral in-

fusion; or if this should excite cough, it may be given in divided doses, made up into bread pills, drinking a little beef tea afterwards. It is best to commence with small doses, as the sudden introduction into the system of such a powerful stimulant is apt to be followed by congestions of blood in the digestive organs or lungs. A few cresses are recommended to be eaten once or twice every week, after having been well sprinkled with common salt, but no vinegar or oil is allowed with them.

To relieve the pains in the chest, and the burning sensations of which the patient complains, instead of the usual pectoral drinks, M. Latour prescribes the following:—Carrots are to be well boiled in a moderate quantity of water; they are then to be well beaten, and passed through a sieve. The fluid which passes through is then mixed with fresh milk, sweetened with a small quantity of sugar, and flavoured with orange peel. This compound the patient drinks at his own discretion. In general some thirst is at first caused by the administration of the sea salt, and for this M. Latour directs a weak infusion of gentian flavoured with orange peel.

Now, Braithwaite, in his "Retrospect of Practical Medicine" asks, "May not this be confirmed by the circumstance that few cases of consumption occur in Egypt?" and it is said that among the Arabs scarcely a case of the kind has been known, chiefly, it is supposed, from the atmos-

phere being saturated with saline vapour. It is said that "about Alexandria the saline vapour condenses on the walls of the houses in small crystals of nitre, common salt, and muriate of ammonia." The soil is everywhere coated with these saline particles, and yet consumption is almost a stranger in the land. The same may be said of our own Channel Islands—Guernsey, Jersey, Alderney, &c., and here, too, consumption is comparatively rare.

In that very excellent work, "The Modern Practice of Physic," by Dr. Thomas, we find detailed the mode of treating consumption of the lungs, by foxglove, sulphate of copper, and the myrrh mixture of Dr. Griffiths; and as I have, in several instances, found benefit from a partial adoption of the plan, I will here present it to the reader, in an abridged form, and with some suitable alterations. We may here repeat the observation made in page 67, that foxglove was some years ago much more extensively employed in this disease than it is now, and many of its advocates asserted that it was quite capable of effecting a cure. More careful trials of its virtues have, however, proved the fallacy of such a statement, and shown that it is only under certain conditions of the system, and when

combined with other remedies, that foxglove can be expected to operate with decided advantage on the disease. "I believe that in acute phthsis," says Sir Charles Scudamore, "employed with care and judgment, foxglove is one of our most valuable medicines; but in the chronic form of the disease, the most common, and that for which I recommend the inhaling treatment, it is the last medicine which I should choose, except as a temporary one, under particular circumstances. It is too depressing an agent, except when an increased circulation is joined with an active inflammatory diathesis."

Dr. Beddowes (says Thomas) has expressed a wish that we could obtain a *single auxiliary* to foxglove, for that then he should expect that not one case in five would terminate as ninety-nine in a hundred have hitherto done. I would propose the myrrh mixture of Dr. Griffiths, and vomiting twice a week with sulphate of copper (as recommended by Drs. Marryatt and Senter), adding a proper dose of the tincture of foxglove to each of the myrrh draughts, and thus giving them together. This plan of proceeding (he continues) I have adopted in several cases, and with much seeming advantage.

The preparation used by Dr. Moses Griffiths was as follows :—

Take of

Myrrh	1 drachm.
Dissolve it in a mortar with	
Spirit of pimenta	6 drachms.
Distilled water	6½ ounces.
Then add	
Subcarbonate of potash	½ a drachm.
Sulphate of iron	12 grains.
Syrup	2 drachms.

Mix them, and divide the whole into four draughts, one of which is to be taken in the morning, another at five in the afternoon, and one at bed time.

As the above is to be divided into four draughts, each draught contains 15 grains of myrrh, 7½ grains of subcarbonate of potash, and 3 grains of sulphate of iron; but the myrrh may gradually be increased to 17 or 18 grains for a dose, the subcarbonate of potash to 10 grains, and the sulphate of iron to four. But it is always best to begin with small doses, and, as the symptoms abate, to give two draughts a day, containing in each 18 or 20 grains or myrrh, 12 of the potash, and 5 or 6 of sulphate of iron, which is the largest dose that should be taken. This medicine, although a little nauseous at first, is, nevertheless seldom rejected by the stomach, or excites any kind of disturbance in the habit afterwards.

The above is employed with great success in those cases of hectic fever which are unattended by any great degree of heat or thirst, and which do not show manifest signs of inflammation. If at any time it should be thought too heating, the spirit of pimenta may be omitted, as the solution may be made without it; but it is a doubt whether it will agree so well with the stomach of patients in general. Also where hectic heats and flushings prevail in a high degree, and the pulse is very frequent, it probably might be most advisable to omit the sulphate of iron entirely.

The compound mixture of iron of the last London Pharmacopœia is similar to Dr. Griffiths' medicine, and is intended as the substitute for it; but several variations in the formulæ are made by different authors, not materially affecting the nature of the composition. The following are two of the number:—

Take of

Powdered myrrh	1 scruple.
Sulphate of iron	1½ grain.
Carbonate of soda	4 grains.
Peppermint water	1½ ounce.

Make a draught, to be taken three times a day

Another form, an improvement on the preceding :—

Take of

Powdered myrrh	2 drachms.
Sulphate of iron	24 grains.
Subcarbonate of potash	1 drachm.
Mucilage of gum Arabic	½ an ounce.
Decoction of liquorice, hot	14 ounces.
Tincture of ginger	1 ounce.

Rub the myrrh and sulphate of iron with the subcarbonate of potash and mucilage of gum arabic, till they are thoroughly mixed together; then add by degrees the decoction of liquorice, and, lastly, the tincture of ginger.

Two tablespoonfuls of this are to be taken three times a day.

The dose of the compound mixture of iron of the London Pharmacopœia is from two tablespoonfuls to a wineglassful twice or thrice a day.

Whatever formula is made use of, it should not be made long before it is wanted, for its efficacy is diminished by keeping. We must also carefully prevent its being exposed to the air.

Should the myrrh mixture not sit easy on the stomach, or be objected to on account of its nauseous taste, we may then form the myrrh and

other ingredients into pills, as follows, and give the foxglove separately :—

Take of

Powdered myrrh	2	drachms.
Sulphate of iron	1	scruple.
Subcarbonate of potash	1	drachm.
Extract of gentian..	1½	drachm.

Syrup, sufficient for the mass.

Make it into seventy pills, and take three or four thrice a day.

These are similar to the compound pills of iron of the London Pharmacopœia.

If the above pills are made use of, a proper dose of the tincture of foxglove may be administered in about an ounce of the infusion of quassia or of cascarilla. In either case the proper dose of the foxglove in tincture is at first from five or ten to fifteen drops *three* times a day, increasing two drops every *second* day, until it produces a sensible effect upon the system, either the kidneys, the stomach, the pulse, or the bowels. It may then be diminished in the same gradual manner, and again augmented according to the effect. By these means the body may, with the greatest safety, be kept under its influence for weeks and even months. It will never be prudent, however, to employ a greater dose than *thirty* drops *three* times a day, for it is to be noticed that foxglove is a cumulative medicine, that is, its effects do not

immediately appear, but when the doses are too frequent or too quickly augmented, its action having been accumulating in the system all the time, is concentrated so as to produce sometimes on a sudden the most violent symptoms.

It is certain that foxglove allays cough and irritation in the lungs in a powerful manner, and greatly diminishes the hectic fever.

When the stomach and head are disordered by the use of this article (which will sometimes occur by even a small dose) producing vertigo, nausea, and actual sickness, a little lemon juice will almost always produce a good effect immediately; it will remove the unpleasant symptoms, and enable the patient to take a full dose of the tincture without inconvenience, and with perfect safety.

Vomiting with the sulphate of copper is highly recommended in the early stage of consumption. From this article having been found to excite vomiting readily and easily without relaxing the stomach, irritating the intestines, or greatly fatiguing the patient, it has been more generally used in consumptive cases than any other medicine of the same class. The dose is from three grains to ten or fifteen, in proportion to the age of the patient, dissolved in a wineglassful, or a little more, of water. A vomiting is excited very soon after it is received into the stomach, on which the patient may drink a pint of water. This may be done two or three times a week.

Dr. Marryatt seems to have been one of the first who recommended the employment of the sulphate of copper as an emetic in consumptive cases. He advised it to be combined with tartarized antimony, thus :—

Take of

Powdered sulphate of copper, and tartarized antimony (emetic tartar), of each 7 grains.

Mix well, and divide into three powders, one of which is to be taken twice or thrice a week.

When any diarrhœa attends, he gives one grain of the sulphate of copper in conjunction with four or five grains of ipecacuanha powder for a dose.

During the operation of the medicine, he advises nothing to be drunk, for which reason he calls it the dry vomit.

Dr. Senter, an American physician of repute, says he has restored more persons labouring under hectic fever from glandular suppuration, by thus vomiting every second or third day, and giving in the intervals as much as the stomach would bear of Griffiths' Mixture, than by all the other methods he has ever read of or tried. He looks upon the sulphate of copper to be one of the most safe and efficacious emetics, joined with ipecacuanha, that the materia medica furnishes us with. His plan is thus : sulphate of copper and ipecacuanha, of

each from seven to ten grains, made up into pills, to be taken in the morning fasting, without drinking anything for some time afterwards.

Vomiting must not be adopted with pregnant women.

The plan of vomiting with tartarized antimony has been followed with extraordinary success in the military hospital at Capua, in Italy; for it is stated in a periodical work, published in that country, that 176 patients, admitted during a period of four years, were ultimately discharged perfectly cured by this means. Forty-seven of this number were in the incipient, and 129 in the advanced stage of the disease. The following was the mixture which was constantly administered:

Tartarized antimony	3 grains.
Syrup of Cloves	1 ounce.
Decoction of marsh mallows	6 ounces.

Mix. The dose was a tablespoonful night and morning, and repeated until vomiting ensued.

But there is a vegetable production which has within the last twelve or fourteen years been found much more eligible as a vomit in consumptive cases, than the sulphate of copper, tartarized

antimony, &c., it is the Lobelia Inflata, an American plant, which grows plentifully in the United States, flourishing as a common weed on the road sides, and in waste places. It flowers in that country from July to October. It is a biennial plant, with a fibrous root, and a solitary, erect, angular, hairy stem, about a foot high, branching above its mid height.

Asthma is the complaint in which it has been chiefly employed, and the testimony of hundreds bears witness to its specific effects, more particularly in the spasmodic kind, for it instantly relieves the distressing paroxysms as if by a charm. But it is no less efficacious in the complaint we are now considering. I have in a former part of this treatise stated in what way it may be employed in inhalation, and what benefits may be expected from that mode of exhibition. I will now give the necessary information as to the doses which may be taken internally. When it is intended to give the medicine without producing sickness, the tincture is generally made use of, and there are two sorts kept in the shops, the one made with spirits, the other with ether, and each of these may be given in the dose of half a teaspoonful in a wineglass of water. This is a medium dose, but some people will bear double the quantity, while others can take only a few drops without being sick. A trial or two will soon satisfy each patient as to the extent which he can conveniently support, and he will then be able to regulate the

quantity to suit himself. The medicine may be taken in this manner, that is, without causing vomiting constantly, instead of any of the cough mixtures or pills mentioned in the preceding pages, for it will enable the patient to get rid of the matter which collects in any part of the respiratory apparatus with greater ease than any other article.

I frequently prescribe in conjunction with it the same articles that I have directed for the inhaling, namely, hydrocyanic acid, and the aromatic spirit of ammonia, in the following proportions;

Take of

Hydrocyanic acid, diluted according to the London Pharmacopea of 1836 ..	18 minims.
Æthereal tincture of lobelia inflata ..	1½ ounce.

Mix, and take half a teaspoonful three times a day, in a wineglassful of water.

The bottle containing this should be kept well corked and excluded from the light.

Take of

Aromatic spirit of ammonia	½ an ounce.
Tincture of lobelia inflata	1 ounce.

Mix, and take a teaspoonful three times a day, in a wineglassful of water.

When an emetic dose is wanted, which is indicated by a foul tongue, uneasy sensation in the stomach, headache, great accumulation of matter in the bronchial tubes, &c., we may employ either the tincture, the powdered leaves, or the infusion; and here again the doses will vary according to the peculiarity of each individual.

With regard to the tincture, a dose double of that which he is accustomed to take in ordinary will generally induce vomiting, but some persons will require two teaspoonfuls at a time. Whatever dose is taken it may be repeated every half hour till the effect is produced; for although it has been stated by some authors, who have never extensively employed it, to be a dangerous medicine, yet I can assure my readers that such is not the case. No apprehension need be entertained of its acting improperly or injuriously, and it may be fearlessly administered, in any of its forms, until full vomiting be produced. There may possibly be some cases in which it would be inapplicable, in the same manner as the wine and powder of ipecacuanha are sometimes found to bring on a paroxysm of asthma, the very circumstance which they were intended to ameliorate or prevent. This will not occur in one case out of two hundred, and is owing to a peculiarity in some persons of the stomach and nervous system, which is aggravated by the very same remedy that proves beneficial in other apparently similar cases.

The powdered leaves (which are preferred by many) are given in doses from four to twenty grains. Ten grains produce nausea in most persons, and fifteen grains often excite full vomiting, followed by profuse perspiration. It must be repeated till the effect is produced.

The infusion is made with one ounce of the herb to half a pint of warm, but not boiling water, two tablespoonfuls of which are to be given every half hour until nausea be induced.

In all cases the patient should drink freely of warm tea while under the operation.

Vomiting with lobelia inflata will frequently arrest bleeding from the lungs after all other means have failed. There is also another peculiarity attending this herb which is not generally known, namely, that it will very often clear the stomach of all morbific matter, without disturbing the food which may have been taken perhaps only half an hour previously. It is perfectly astonishing what an immense load of foul and slimy substances will sometimes be ejected from the stomach by means of this excellent medicine, whilst the food remains untouched. As soon as this takes place, the patient experiences immediate relief, from the healthy action which is instantly established throughout the system, and the stomach is thus prepared for the reception of any medicine that may afterwards be deemed needful, which medicine would have had no chance of

effecting the least good whilst this baneful mass was suffered to remain unremoved.

It is not, however, always that this separation takes place, for sometimes the food is ejected in company with the other contents of the stomach. But the benefit derived to the lungs, and ramifications of the air vessels, is incalculable, for they all become unloaded in a perfect manner, and gain strength from the absence of the putrid substances.

Lobelia inflata had been employed by the Indians long before it was introduced into regular medical practice, and it happened in this, as in many other cases, that the virtues of the herb had been discovered and rightly appreciated by untaught and uncivilized people for many years before it attracted the attention of the scientific world. It was introduced to the notice of the profession in America by the Rev. Dr. Cutler, of Massachusetts, but Dr. Reece, of London, appears to have been the first who made it much known in England, by means of his "Practical Treatise on Asthma," about the year 1830. In this book he gave full directions for its use, and medical testimonies in favour of its virtues. Since then it has been extensively employed by Drs. Elliotson, Kinglake, Barton, Robinson, Drury, Sigmond, &c. &c., and its properties fully proved to be of the most important and salutary description.

TENDERNESS OF THE ABDOMEN.

In some cases of consumption, the patient experiences great tenderness of the abdomen; in fact, he labours under a kind of chronic peritonitis, dependent on the formation of tubercles in the peritoneum,—that is, the membrane which encloses all the intestines in the abdomen, and covers all the inside of its cavity. At other times, there exists a troublesome diarrhœa, caused by the deposition of tubercles in the mucous membrane of the intestines, which quickly reduces the patient to the most lamentable state of emaciation and debility.

In such cases as these, I have found nothing so efficacious as the syrup of the iodide of iron, a medicine first recommended by Dr. A. T. Thomson. It is (as he justly remarks) rapidly carried into the circulation, and operates as a stimulant to the glandular system, whilst at the same time the iron supports and improves the tone of the habit. It also agrees better than either iodine or iron given alone, and is certainly more efficacious in the complaint now under consideration, and in diseases of the mesenteric glands, than any medicine I have ever known or heard of. Cases have come under my notice in which this tenderness of the lower part of the body had existed for months, and which has been removed after the third or

fourth time of taking the medicine; and when it returned, another dose or two has served to keep it in check.

The dose which I give is from 20 to 40 minims of the syrup, in a wineglass of water, three times a day. It thus agrees well with the stomach, and does not produce nausea.

At the same time, I generally order a small quantity of the following ointment to be rubbed in about the navel (not into it) twice a day, as an auxiliary:—

Take of

Iodide of potassium	1 drachm.
Prepared lard	1½ ounce.

Mix into an ointment, and use a piece each time about the size of a small nutmeg.

Great attention must be paid to the diet, which must be as nourishing as the stomach is able to bear, and a small portion of brandy or wine ought also to be taken.

A great deal of anxiety is frequently experienced by patients at the hoarseness and loss of voice which often take place in affections of the lungs. Inhalation is the most effectual remedy, which alone will often restore the relaxed parts to their healthy tone; but, in order to expedite

this desirable result, we may make use, at the same time, of the following liniment:—

Take of

Compound soap liniment	1 ounce.
Acetic solution of cantharides	1 drachm.
Rectified oil of turpentine	2 or 3 drachms.
Oil of cajeput	2 drachms.
Oil of lemons	10 minims.

Mix well together, and rub a portion of it well into the front part of the throat twice or thrice a day.

The acetic solution of cantharides is a saturated infusion of cantharides in strong acetic acid. It is not generally kept by druggists, but can be obtained from any of the London wholesale houses.

In the latter stage of the complaint, we frequently find the tongue and throat beset with little sores, which occasion much tenderness, and prevent the patient from swallowing any kind of solid food. If he has sufficient strength, the best plan is to take an emetic of lobelia inflata, to dislodge the acrid substances with which the stomach is generally loaded, and afterwards to make use of the following application:—

Take of

Borax	2 drachms.

Dissolve it in

Water	2 ounces

Then add

Powdered gum arabic	2 drachms.
Egyptian honey (liniment of verdigris)	3 drachms.

Mix it well. To be applied every night and morning by means of a camel hair brush.

The emetic must not be taken, if extreme weakness be present.

I wish here again to observe, that none of the plans just detailed can be relied on with a full degree of confidence, unless inhalation be practised at the same time. We must act locally on the tubercles themselves, as well as on the system generally, in order to effect an absorption of them in their crude state, or heal their surfaces when ulcerated.

ON BLEEDING AND BLISTERING IN CONSUMPTION.

The opinion of the late celebrated French physician, Laennec, respecting blood-letting in consumption, will ere long be echoed throughout the world. It is this,—"That bleeding can neither prevent the formation of tubercles, nor cure them when formed. It ought never to be employed in the treatment of consumption, except to remove inflammation or active determinations of blood, with which the disease may be complicated; beyond this, its operation can only tend to an useless loss of strength." The advocates for bleeding seem on this point to be deprived of their ordinary powers of penetration and conception,—

otherwise it must surely be evident to them, that, in proportion as they abstract blood, they so far incapacitate nature for carrying on the animal functions with vigour. It is a most wanton waste of the most important of all the fluids, and that which serves to nourish every secretion and every solid part of the body. The truth is, there is no necessity for bleeding, except where there is great local fulness of blood, and this is so seldom the case that the lancet is not applicable in one instance out of a thousand.

Of late years, the light which has been thrown by chemistry on the nature of the blood renders bleeding much more inexcusable now than it was in former days, when science had not explained to us the cause from whence the injury arises. Inflammation is a disease caused by excess of oxygen in the system, and this oxygen is absorbed out of the air we breathe, and carried to all parts of the body by means of the red globules of the blood. This has been clearly established by the researches of the great Liebig. The object of bleeding is to take away a portion of the red globules of the blood, and thus to diminish inflammation by removing its cause; and so far the view of the matter is right and the object is attained, for the red globules are not concerned in the nourishment of the body. But we cannot stop here, for bleeding cannot separate the globules from the nutritious parts of the blood which support life, and unfortunately the latter

will come away at the same time; and thus, when we have put a temporary stop to some disease by this sanguinary plan, we have drained the body of its best fluid, and reduced it to such a degree of debility that we often lay the foundation of worse and more lingering diseases than the one we have cured. It is no unusual thing for dropsy, consumption, &c., to be thus induced in the body, and to date their origin from this practice. The constitution is often broken beyond the reach of recovery by bleeding even strong people for inflammatory diseases, and they are ever after more liable to a recurrence of their former complaints, and more susceptible of new ones.

It is a certain fact, that it requires months, and sometimes years, to restore the red globules of the blood which have been abstracted by bleeding; for on some persons having been bled again, after the lapse of two or three years, the blood has been found still devoid of its nutritive properties; being poor, thin, and watery.

The symptoms for which it has generally been deemed necessary to bleed and blister in consumption, are where pain exists in the side, arising from pleurisy or inflammation of the pleura—that membrane which lines the cavity of the chest, and envelopes the lungs; heat or pain in the region of the heart, or other part of the chest, rendering it difficult for the patient to take a full breath, or move himself in any direction without acute suffering in that part. But every symptom

of this sort may be effectually removed without either bleeding or blistering by the following simple treatment: At night when going to bed take a common towel and soak it well in a basin of cold water, wring it out thoroughly, and double it once lengthwise; then fasten it securely next to the skin, round the chest or side wherever the pain is felt; take another towel perfectly dry, doubled also once, and fasten it round the wet one; get into bed, having previously had a large stone bottle, containing about half a gallon, filled with hot water, and put at the feet; then take a dose of the following medicine, and lie down well covered up:—

Take of

Infusion of hoarhound	1 pint.
Cayenne pepper	1 drachm.
Tincture of Myrrh	1 ounce.

Mix, and take three tablespoonfuls for a dose. This may also be taken twice or thrice a day.

The above management will excite the internal energies of the system, and cause great evaporation from the surface of the body; very copious perspiration will ensue, and the patient will be relieved, generally at the first trial, from every symptom of pain. The pulse will be restored to a healthy standard, and all inflammatory action completely subdued. The lancet and blister may be safely dispensed with. Should the case, how-

ever, prove an obstinate one, the same plan may be adopted every night in succession for a week, if necessary.

The effect will be increased if the stone bottle be wrapped round with a cloth soaked in warm vinegar and water—one part of the former to four of the latter.

To make the infusion of hoarhound, pour rather more than a pint of boiling water on two ounces of the leaves. Infuse for two hours and strain for use.

When the above plan is not adopted, an emetic affords the best chance of getting rid of the pains, for it ought to be more generally known that emetics do not act upon the stomach solely, and confine their benefit to one region, but they set up a beneficial action throughout the whole of the system—they change the whole condition of the body, and cut short the symptoms of various diseases in a manner sometimes truly miraculous. The practice of giving emetics was much more in vogue in former days than it is now, and it would be well for thousands were these medicines at the present day more frequently administered. Instead of suffering for two or three months, or even years, from some lingering disease, they would get cured in as many days.

DIRECTIONS FOR DIET.

The regulation of the diet is a matter of the very highest importance to consumptive patients, for by this alone we may correct or modify the constitutional disorder to a very great degree, and communicate the strength which is necessary to support them against its exhausting effects. It may be laid down as a general rule that it ought to be as generous and nourishing as the powers of the digestion in each individual case will allow—the lowering system, depend upon it, will not answer in this disease, which is essentially one of wasting and debility, as I have before observed. If the weakness of the patient is extreme, he must undoubtedly submit to great restriction, to be determined by the circumstances at the time, but in general we ought to aim at propping up the enfeebled energies of the constitution, and study to improve the strength by as much supporting food as can be comfortably received, without stimulating too much, or oppressing the stomach and digestive powers.

It unfortunately happens that poverty is the lot of too many who labour under the worst forms of this disease, and is in all probability, the exciting cause of it, from want of a proper quantity of food, clothing, and cleanliness. When such is the case, our exertions are sadly cramped, and

we are unable to effect half the benefit that can be accomplished with those who can command the comforts and conveniences of life.

Something, however, like the following plan may be pursued by one whose strength is not already too much exhausted, and whose circumstances will allow of his adopting it:—He must rise early, and take as much active exercise as he can for a short time before breakfast. After resting for a time he may eat for his morning repast, a boiled egg, or orange marmalade,* with good mixed bread, one or two days old—or if he prefer it, let him take a basin of boiled milk and bread. If he drinks tea it should be all black, but chocolate is better than either tea or coffee. In the forenoon, after having had more exercise in the open air, let him drink a wineglass of port or sherry, mixed with the same quantity or more of water, and eat a biscuit. For dinner he must have good fresh animal food, chiefly mutton, sometimes beef, but never veal or pork; a small quantity of potatoes, well made bread, and half a pint of sound draught porter. Ale is not so advisable, because it seems too heating for consumptive patients. The inside of roasted beef or mutton, with its red juices, that is, not cooked too much, is most proper. Animal food in this state, is not only more nutritious, but more easily di-

* This preparation is much more wholesome and pleasant than butter, both for invalids and persons in health. It may be had of most druggists and grocers.

gested, than when rendered brown by roasting or boiling. It is more quickly converted into *chyme* than vegetables, and the *chyle* formed from it is more rich, and consequently contributes more to the formation of healthy blood, and to the solid structure of the body. It is a remarkable fact, that butchers, who live chiefly on animal food, are more exempt than other persons from *true* pulmonary consumption.

There are many other articles which may be taken with propriety by consumptive patients, as chickens, pigeons, turkeys, and rabbits; also partridges, venison, and grouse; but ducks and geese are very indigestible, and should be avoided.

Here I ought not to omit mentioning a fact of great importance in this disease, that when a young person is confined to a vegetable diet, which is now a fashionable practice, to prevent consumption, his body advauces in *height* but not in bulk. His chest *elongates*, but not *expands;* his neck also grows proportionally *long;* in fact he becomes of that form or shape which is termed "*a consumptive make;*" whereas, when he is allowed a proper proportion of animal food, his body does not attain so great a height, and his chest expands. Instead of the consumptive form, his body spreads out: he, in fact, gets in *bulk* what the other does in *height.* To deprive a person in a growing state of animal food is, therefore, to predispose him to diseased lungs. It is not found that meat containing the *red* juice, or not rendered tough

by over roasting or boiling, and taken in moderation, stimulates the system more than a diet consisting entirely of vegetables. The latter is unquestionably more difficult of digestion than the inside of roasted meat. No set of men are more healthy than those who live on slightly cooked meat. An exclusive vegetable diet will bring on diseases of almost every description.

Light puddings, animal broths and jellies, oysters, lobsters, and other shell fish in moderation, also soles and whitings, are excellent for this complaint; but fish in general yield but little nutriment.

About an hour after dinner, let the patient take another glass of wine, diluted as before—more exercise shortly after. At tea (of which he should drink sparingly) he may take whatever his inclination may prompt, provided it is easy of digestion. For supper, which of course should be temperate, he should have something nourishing, such as beef tea, sago, good oatmeal gruel, or boiled milk. By this plan, the morbid condition of the nutritive functions will be rectified, and the irritability of the heart and arteries, which is frequently produced by want of nourishment, will be considerably allayed.

I need not say, that variations and modifications of diet will be made according to the inclination and digestive powers of the patient. As in health, so in disease, what may be a moderate quantity in one, may be excess in another, and the con-

trary; so that a regular standard can by no means be laid down.

One caution, however, should be observed, that whatever is followed by increased heat of body should be abstained from. The best proof that food of any kind agrees with a patient is, the absence after meals of constitutional disturbance.

I wish here to address myself to those who conscientiously abstain from alcoholic drinks. They will see that I advocate a small quantity of wine and malt liquors; and this I do on equally conscientious grounds, as a medicinal article solely. I assure them, that a gentle stimulus is necessary to enable the enfeebled lungs to perform their office more effectually; and that, although the drinking of wine, spirits, &c., does in hundreds of instances originate the disease, the very same articles will, under proper regulation, assist to remove it. I repeat, that they are here recommended as medicines solely. The same objection which may be brought against wines and other liquors, may, with equal validity, be urged against any active medicine in daily use, namely, that if taken in excess, it will do harm. But are we, on that account, not to take it in proper doses when disease is present? Let the same reasoning be applied to moderate doses of alcoholic liquors as medicines, and I think the most scrupulous must confess that their limited use may be beneficial. If any person, when labouring under consumption, will persist in drinking water alone, I can

respect his motive, but must declare my opinion, grounded on experience, that he is using means to bring on his dissolution more speedily. I have thought it necessary to say thus much, both in justice to myself and to those who are the subjects of this complaint.

As a common beverage, water is undoubtedly the only liquid required; it is that which nature points out, and which she has so abundantly provided for this express purpose. It is suitable for almost every variety of constitution, and is more effectual than any other liquid in allaying thirst. No alcoholic liquors ought to be used as common drinks, even in moderate quantities; their habitual employment deranges the animal economy, weakens and blunts the nerves, vitiates the secretions, causes obstructions in all the principal organs, and destroys the digestive powers; in short, they ought to be prescribed only by medical men, in the same manner as other medicines. Those who totally abstain from them are in the right; they have science on their side, and may fearlessly court the strictest investigation on the subject. The benefits of total abstinence would be unlimited both in health and morals, for it is my candid opinion that were alcoholic liquors completely laid aside by the world at large, three-fourths both of the diseases and crimes of society would be totally unknown. Half of the medical men might give up their calling from having nothing to do, and the various places of imprison-

ment might in most instances be safely converted to other purposes.

IMPORTANCE OF PURE AIR AND EXERCISE.

The neglect of pure air, which is so frequent among persons labouring under Consumption, cannot be sufficiently reprobated; for it is sure to aggravate every symptom of the complaint, and is one grand reason why it frequently continues not only unchecked, but goes on with such fearful rapidity in its course. The fatal plan of shutting the sick persons up in a close room, enveloping them in a three-fold load of blankets, and excluding as much as possible the pure external air, is sufficient to bring on the disease even in a healthy person, and to one already labouring under it, is the surest way to hasten every existing symptom, and accelerate the extinction of life. What can be more preposterous than to make such invalids breathe over and over again the same foul air, contaminated with the diseased effluvia of their own persons? Such treatment must inevitably convert a slow, and perhaps not very dangerous, stage of the disease, into one that will soon terminate all expectations of recovery. Nothing but the risk of actually getting wet, or of exposing themselves to cold north-east winds, should deter

patients from being out much in the open air—for experience proves, that constant exposure to the weather out of doors is a main agent in curing the disease.

When they are too weak to take walking exercise, riding should never be omitted. In rainy and damp weather, if pecuniary circumstances will not allow of a proper carriage, some contrivance should be fitted to a common vehicle so that the patient may not be confined to the air of the house. He should rise early and get out—for continuance in bed is sure to weaken the system, and offer more easy inroads to the complaint. Exercise, either by walking or riding, should be gently increased, till it can be taken for lengthened periods without fatigue. This will enable the patient to bear a proper proportion of nutritious food, and take into the system the medicine that is necessary. It is true that coughing frequently comes on when the consumptive patient quits his room and emerges into the cold atmosphere—but this is no proof that the *latter* is not suited to his lungs, but rather that the *former* had reduced them to a state unable to bear it, and that they ought to be gradually accustomed to an element which common sense, as well as science, tells us is the more conducive to health. All the caution that is necessary when the patient goes out, is to keep up the proper temperature of his body by a sufficiency of warm clothing, and, as just observed, to guard well against getting wet. This is un-

doubtedly to be well attended to—and when that is the case, no danger needs be apprehended. He should also wear that excellent safeguard, the Respirator, for with this, and observing the preceding cautions, he may go out in all weathers with impunity.

Horse exercise was particularly recommended by the celebrated Sydenham, as a remedy of great power in the cure of consumption. He considered it almost a specific, and undoubtedly its effects are sometimes truly astonishing. As a proof of this we may cite the instance of Dr. Baynard, who, by constant riding in the open air, recovered from a consumption when everybody gave him over as lost. Many other cases likewise are upon record.

Even when the patient is so much reduced as not to be able to mount the horse without assistance we must not despair. Let his ride extend to a very short distance at first, and be gradually increased as his strength can bear it. Thus he will perhaps in a few weeks be able to accomplish ten, fifteen, or even twenty miles a day, and eventually acquire such vigour that he can make much longer journeys on horseback than even these without experiencing any fatigue. Such results have often taken place, and invalids ought to know these facts for their encouragement.

Sydenham considered horse exercise not only proper in slight indispositions, accompanied with a frequent cough and wasting, but even in con-

firmed consumption, wherein looseness has supervened and is succeeded by night sweats; and as we ought to omit no auxiliary means of subduing such formidable symptoms, I strongly advise this excellent practice, when circumstances concur, to be adopted. Constant travelling has a considerable and very sensible effect in restraining inordinate secretions in the body, so that those who have been a long time troubled with looseness, generally become costive in travelling, and such as have been harassed by habitual cough, almost always find it much ameliorated, and often entirely removed by this means.

The pleasure also arising to the mind from a constant succession of new scenes communicates to the frame an influence of the most salutary description.

Another desirable recreation is a voyage by sea, or a short trip round the coast, and it should be indulged in if possible, for it will often arrest the progress of the disease, and restore the patient to a state of complete health. The saline particles with which the atmosphere is impregnated seem to have the most beneficial influence on the complaint, and much good effect is also produced by the occasional vomiting which persons unaccustomed to the sea usually experience.

It ought to be remembered, that in all consumptive cases, it will be necessary to avoid particular irritation of the lungs, arising from the violent exercise of respiration, such as singing,

playing on wind instruments, or making long and loud declamations. The patient is likewise to avoid late hours as one of the certain means of hurrying him to the grave; also the going into crowded rooms, the air of which, from being inhaled by many different people, becomes at length very unfit for respiration, particularly in those whose lungs are already in a weak and irritable state. He is to refrain from placing his body in such a position, either in reading, writing, or following his ordinary occupation in life, as that the capacity of the thorax (chest) shall be at all straitened in consequence of pressure against it; and he is to shun all kinds of bodily exercise which require much exertion.

But in the commencement of consumption, before the patient becomes too weak, moderate running, either on level ground or up a hill, is an excellent means, as a preventive, to ward off the progress of the complaint. It causes the respiration to become frequent and deep; the panting that ensues exercises the muscles of the chest, and enlarges the volume of the lungs. Nor are its beneficial effects confined to the mere expansion of the chest: by the greater portion of air thus brought into contact with the venous system, the blood becomes more effectually freed from the noxious carbon with which it is charged, the animal heat increased, the action of the heart more vigorous, and the multifarious secretions are carried on with greater energy.

For the same reason, some of the more moderate gymnastic exercises should invariably be practised. If these were oftener attended to, we should have a much greater number of patients recover. As the more suitable kind, I should recommend what are called the Extension Motions of the Army, the Exercises with the Pole, and the Indian Sceptre Exercise. All these are beautifully described and rendered clear by plates representing the various figures, attitudes, &c., in a work entitled "Exercises for Ladies," by Donald Walker, and to be had of Hurst, 65, St. Paul's Church-yard, London. These exercises can be taken in the most gentle manner, and moderated according to the strength of the patient. I believe that no one could practise them without finding his powers of breathing greatly strengthened.

Then again, with regard to reading aloud and recitation, they are more useful and invigorating muscular exercises than is generally imagined, when managed with due regard to the constitution of the individual, so as to avoid effort and fatigue. When care is taken not to carry this exercise so far at one time as to excite the least sensation of soreness or fatigue in the chest, and it is duly repeated, it is extremely useful in developing and giving tone to the organs of respiration, and to the general system,—

> "And read aloud, resounding Homer's strain,
> And wield the thunder of Demosthenes.
> The chest so exercised improves its strength;
> And quick vibrations through the bowels drive
> The restless blood, which in unactive days
> Would loiter else through unelastic tubes."

To the invigorating effect of this kind of exercise, the celebrated and lamented French naturalist, Cuvier, was in the habit of ascribing his own exemption from consumption, to which, at the time of his appointment to a professorship, it was believed he would otherwise have fallen a sacrifice. The exercise of lecturing gradually strengthened his lungs, and improved his health so much that he was never afterwards threatened with any serious pulmonary disease. But, of course, this happy result followed only because the exertion of lecturing was not too great for the then existing condition of his lungs. Had the delicacy of which he complained been further advanced, the fatigue of lecturing would have only accelerated his fate; and this must never be lost sight of in the practical application of particular rules of exercise.

BATHING.

The subject of bathing cannot be too strongly recommended to the invalid's attention. The frequent ablution of the whole body is one of the most powerful auxiliaries to medicine in almost every disease of the human frame. The skin possesses in every part both secreting and absorbing vessels, on the due performance of the functions of which our health very materially depends, but their power is impaired by an infinite

variety of causes which daily occur and aggravate, by the derangement they occasion, every other malady of the body, be it what it may. The bath, therefore, by removing obstructions and affording a proper outlet to the cutaneous secretions, will impart to the body, under almost all circumstances, a predisposition for receiving with greater effect the internal remedies and other measures which may be deemed necessary for any particular disease. Of what vast importance, then, must it be, that in a formidable disease like consumption every impediment should be removed which may obstruct the curative process we are aiming at! When the skin is unfitted for its duty by too great a quantity of solid particles being deposited on its surface, which thus stop the healthy process of perspiration, the lungs are overtasked, by having to take the office of the skin, and hence they are weakened and injured. But if this is calculated to cause injury to the lungs, when they are not labouring under any positive organic disease, and when the general health is good, with how much greater certainty must it inflict additional mischief when perhaps each of the lungs is partially destroyed, and, consequently, not in an integral state to bear any increased exertion or labour! This circumstance has seldom received the attention in the treatment of this disease which its importance demands.

The vapour and warm shower baths are the most efficacious, and those who are provided with

the necessary apparatus may have them administered at their pleasure every, or every other, day; but to those who are not so fortunate, the simple substitution of a large tub, filled with warm water (for the cold bath would give too great a shock to the body) will answer the purpose extremely well, and if it be employed two or three times a week, the practice will relieve the lungs of an undue burden, and the benefit resulting from it will be proportionally great. It ought never to be neglected by the poorest patient. As a general rule, the water ought simply to be warm enough to feel pleasant, without a positive sensation of heat, and as it will be more effective if flannel and soap are used with it, the time employed may occupy fifteen or twenty minutes. The cold bath is too powerful in its agency to be used by invalids even in summer, for it should never be forgotten, that, in proportion as cold bathing is beneficial when judiciously administered, it is equally hurtful if resorted to when the constitution is not sufficiently vigorous to secure reaction after it, which reaction is indicated by a warm glow over the whole surface of the body. The most proper time for using the warm bath is an hour or two before dinner.

If even simple bathing with warm water is deemed too much labour, the body should be sponged with vinegar and water, or salt and water, which may also be made warm. Friction with the flesh-brush or a towel will also confer a very

great benefit in the absence of regular b
It not only purifies the surface of the body
gives a pleasurable sensation of warmth over the whole frame.

The regulation of the flannel clothing is a subject of vast importance to invalids, much more so than is generally imagined. Too often a flannel waistcoat is worn night and day for two or three weeks in succession without being taken off. Nothing can be more pernicious than this, since the exhalation from the skin is so constant and extensive, and when persisted in it is quite sufficient to neutralize the benefit of all other sanatory measures; for by such a practice the perspiration continues as it were compacted on the skin, blocking up all the pores, and prevents the escape of noxious particles. These particles are thus unavoidably absorbed into the system, and being carried into the mass of the blood, they greatly vitiate that fluid, increase the morbid condition of the whole body, and add proportionably to its debility.

Every person who wears flannel in the night, whether in health or sickness, should have two waistcoats, the one for the day, the other for the night. That which has been worn in the day time should be spread out, when taken off at night, upon a chair, or some other place, to allow of the perspiration being exhaled,—it is then comparatively purified when he puts it on next morning. In the

same manner that which has been worn in the night can be exposed freely during the day for the same purpose. They should never be worn in their wrong turn, but each be kept for its respective period. This point ought to be faithfully attended to. It is further to be observed that every person should have fresh clean sets once a week at longest, and those who perspire much will do well to renew them oftener.

It may not be amiss to observe here that the habit which some persons have of sleeping with their heads covered over with the bed clothes is one of the most pernicious that can be adopted, particularly by consumptive patients; for by this means they are continually receiving into their lungs air of the most vitiated description, and such as is perfectly unfit for the purposes of respiration. They are breathing over and over again an atmosphere surcharged with that noxious ingredient, carbonic acid gas, which has previously been expelled from the lungs, and rendered still more noxious by every successive respiration. No practice in the world can inflict a more deadly injury on the lungs than this, or tend more to shorten the life of the patient, in spite of every other means used to benefit him. Persons in health also should avoid it most scrupulously, as being calculated to originate pulmonary complaints in a very decided manner.

Another subject here claims our attention as bearing very considerably on the point we are

discussing. I allude to the common practice in families of making up the beds in the morning soon after they have been quitted. A more unhealthy plan cannot be pursued, and as it regards a consumptive patient, perfectly unjustifiable by any consideration of domestic convenience. For let it be remembered that the bed clothes are then saturated with all the nocturnal impurities arising from the diseased frame, and require a long exposure to the pure air to render them fit for the succeeding night's use. The window should be set open for the greater part of the day, the clothes hung over the backs of chairs, and the bed and mattress well shaken up. If this thorough ventilation is not practised, the very seeds of disease continue to be engendered. It is suffiicently bad to adopt such a plan where no disease at all exists, for it is likely enough to induce it, but when the frame is already consuming, and wants the invigorating influence of fresh air, it amounts to a perfect poison.

Where circumstances will allow of it, the sleeping room of a consumptive patient ought to be very large, so as to contain the greatest quantity of oxygen possible, that vital portion of the air which is necessary for the formation of arterial or nutritive blood. There ought also to be a fireplace in the room, which should be left open for the purpose of free ventilation, instead of being blocked up, as is frequently the case. A small, confined, low-roofed, and ill-ventilated sleeping

apartment is one of the best inventions in the world both to cause and aggravate consumption of the lungs.

CHANGE OF CLIMATE.

Much diversity of opinion has ever existed among medical men with regard to the value and efficacy of the climate of different places in diseases of the lungs, and it would be useless to cite the various statements that have been made; but the following observations, taken from Dr. Thomas's "Modern Practice of Physic," will, after all the volumes that have been written on this subject, be found to comprise every thing that can be advanced with certainty about the matter.

"In our climate, tubercles are evidently induced and accelerated in winter, and retarded in summer. A person gets a dry cough in winter or spring, which goes off as the summer advances, and was regarded as a catarrh; but tubercles were forming. If, therefore, such a person could be removed to a warm climate before the winter comes on, he might escape an attack at this period, and by continuing there for a few years may be perfectly recovered. Going to a warm climate is not merely avoiding what might be hurtful; it is applying a remedy which has the best chance to prove beneficial.

"It may justly be admitted, that the cold and variable temperature of the winters in England is the great source of phthisis in this country, and when the disorder is once formed, greatly contributes to its fatal termination; and that a warm and equable temperature in some measure prevents the formation of the disease, and when it has taken place only in a slight degree, possesses some power in retarding its progress.

"In the early stage of consumption,—that is to say, when suppuration and ulceration have not yet taken place, it appears from the Report of Sir James Macgregor, that the disease was checked by the climate of the Peninsula among those of the army affected with phthisis; but that, when suppuration and ulceration had ensued, it ran even a more rapid progress than in England; and the same remark has been made in regard to the East and West Indies.

"Where tubercles have suppurated and are discharging, a voyage to a warm climate generally accelerates the progress of the disease; but the mild and comparatively equable temperature of the ocean is beneficial for those in whom there is only a tendency to phthisis or hœmoptysis. It is, indeed, a well-established fact, that a warm climate is only advantageous in cases of incipient phthisis. Persons who have passed the first stage of pulmonary consumption will derive no benefit from a journey to the south of Europe or elsewhere. Those who labour under confirmed

phthisis should never quit their own country. By leaving it, they will lose many comforts; they most probably will be deprived of the attendance of their nearest and dearest friends, as well as that of the medical men in whom they can place confidence, as the English are apt to be prejudiced against foreign physicians; they will, moreover, expose themselves to much anxiety and fatigue, and all this for the vague hope of recovery or prolonging life: an expectation very seldom, if ever, realised. If they remain at home, which they had best do in all cases of confirmed phthisis, they may live throughout the winter in a regulated temperature.

"If the patient's case is one of incipient phthisis only, and his circumstances will admit of removing in due time, that is to say, on the first threatenings of the disorder, from this climate to one in which the temperature is warm during winter, he may do so. The islands of Madeira and Malta, Lisbon, Italy, or the south of France, have been recommended as proper places.

"For persons liable to catarrhal or consumptive complaints, the most important properties of the climates of other countries are, warmth and equability of temperature, especially in the winter months. The islands of Madeira and Malta present, numerically, a mean temperature for the winter months; but Pisa, Nice, Villa Franca (very near the latter), and Hieres, are certainly the most desirable places on the Continent for an invalid.

"When the patient's circumstances or business will not admit of his removing to a more temperate climate, he must endeavour to pass his winter in some place which is dry, and well sheltered from cold bleak winds, where the air is free and pure, and the soil of a gravelly nature. The mild and sheltering vales of Devonshire, but more particularly Sidmouth, Torquay, and Penzance in Cornwall, offer desirable situations of this nature; but the latter may be considered as entitled to a decided preference. It has, indeed, been thought by some as equal to any situation abroad; and, therefore, the victim to consumption will not find it necessary to flee, an exile from his home and friends, to seek a doubtful advantage in a foreign clime."

Many persons have been apparently cured of consumption by removing into a low and rather damp situation, where bilious diseases prevail. The fatal event of pulmonary consumption is uniformly accelerated by residing in an elevated region. There are even instances on record of phthisis making its appearance in families, previously unaffected by it, on changing their places of residence from a level to a hilly country. While, on the contrary, the inhabitants of extensive districts in low places enjoy a complete immunity from this disease. In Holland, pulmonary consumption is a disease of comparatively rare occurrence. The same situations that predispose to ague are unfavourable to the attack of phthisis,

as if these two states of disease were incompatible with each other. The physicians of ancient Rome were accustomed to send their consumptive patients to the low and marshy land of Egypt. Cicero, the celebrated orator, who, in his youth was threatened with consumption, travelled into Egypt for the recovery of his health.

THE STETHESCOPE.

I have said nothing about the use of the stethescope, or chest inspector, in this Treatise, because it requires great experience, nicety of ear, and discrimination of sounds, to employ it successfully—to private persons it can be of no use—and the medical practitioner has other means of learning it than from the pages of a popular Treatise. I may here, however, just observe, that this instrument was invented by the celebrated French physician, Dr. Laennec, in the year 1816. It is a hollow wooden tube, varying from nine to eleven inches in length, and by applying it to the chest we can ascertain by the sound whether the lungs are in a healthy state or the contrary; for, as sounds conveyed by a tube in direct contact with the ear are much more distinct than when widely diffused through the atmosphere, a person who is conversant with the natural soft murmur given out by the lungs in a healthy state, can

institute a much more correct examination by means of this little instrument, than he could possibly do by the ear alone.

THE VARIOUS CAUSES OF CONSUMPTION.

No fact in medicine is better established than that which proves the hereditary transmission from parents to children of a tendency in the constitution to pulmonary consumption; but although consumption and scrofula are frequently inherited from parents, and both complaints descend thus from generation to generation, yet it is well observed by Dr. Clark, that inattention to diet frequently originates those diseases in families that are free from all hereditary taint. He shows clearly, that a morbid condition of the system, extremely favourable to the production of both consumption and scrofula, is speedily brought on by continued mismanagement of diet; for although the lungs are the parts most usually affected by this disease, it is a mistake to suppose that it is a merely local complaint. Very commonly tubercular matter is found, at the same time, in the liver, mesentery, and many other parts; and there can be little doubt that the essential cause of the whole is a particular form of constitution, either inherited from parents, as before said, or brought

on by irregular habits, want of fresh air and exercise, or other diseases and circumstances that enfeeble the body. It is not just, therefore, that every individual who labours under either consumption or scrofula should look to his progenitors as the cause of the malady, for he may himself be the very first of his family in whom it has made its appearance; and the cause may be looked for in dyspeptic ailments which have paved the way for the inroads of the disease, and completely predisposed the system for its reception. In every family some one must be the first, and this is often the mode of its origin. Neglect of the proper regulation of diet produces imperfect nutrition, which among the wealthier classes most generally arises from excess in quantity, or a too stimulating quality of food—but among the lower classes, from deficiency in quantity or quality, added to scantiness of clothing, want of cleanliness, and improper ventilation. In short, whatever is capable of impairing the constitution or general health, is liable to produce a consumptive state—a total change being thus wrought in the fluids and secretions of the body, which gives rise to the formation of tubercles. Mental anxiety also, or any depressing passions long continued, as well as chronic disease of various kinds, predisposes the system to this wasting disease. The remedy for this exciting cause, it is obvious, is within the power of all, except of the very poorest classes; and by proper attention to the general health,

avoiding excesses of every description, particularly of hot and vinous liquors, which gradually debilitate the lungs, the malady may in general be averted. Some individuals speedily break down under the various predisposing and active causes which I have enumerated, whilst others bear up much longer before they sink under their baneful influence. To the want of due care is frequently to be attributed many of our diseases and premature decay: as rational and social beings, therefore, who are necessary to each other's happiness, we ought well to combat the first inroads of disease, particularly when the part attacked is vitally important to the healthy economy of the corporeal system.

ASTHMA.

A short description of asthma will not be improper before stating the remedial measures.

This disease is a spasmodic affection of the lungs, which comes on by paroxysms most generally at night, and is attended by a frequent, difficult, and short respiration, together with a wheezing noise, tightness across the chest, and a cough, all of which symptoms are much increased when the patient is in a horizontal position.

Asthma may occur at any age; but except where there is a mal-conformation of the chest, it seldom attacks in early life. It usually afflicts persons of mature or advanced age. People who follow certain occupations are more liable to it than others; such as millers, maltsters, stone-cutters, wool-combers, flax-dressers, &c. Many of these instances, however, of short breathing, belong rather to dyspnœa than to asthma. Although the attacks are so severe and distressing for the time, yet in the intervals the patient commonly enjoys a tolerable share of health, and is able to engage in the pursuits of business or pleasure, according to his station in life; nor do they seem, in numerous instances, to have much effect in shortening the natural period of human

existence, many asthmatics having been known to live to the age of seventy and upwards.

The complaint seems to attack men more frequently than women, particularly those of a full habit, in whom it never fails, by frequent repetition, to occasion some degree of emaciation. Dyspepsia always prevails, and appears to be a very prominent feature in the predisposition. Its attacks are most frequent during the heats of summer, and in winter when heavy fogs or sharp cold winds prevail.

When the disease is attended with an accumulation and discharge of humours from the lungs, it is called the *humid* asthma; but when it is unaccompanied by any expectoration, it is known by the name of the *dry* or *spasmodic* asthma.

In this latter species the fit is sudden, violent, and of short duration; the constriction on the chest very hard and spasmodic; the cough slight, and the expectoration scanty, and only appearing towards the close of the fit. In the humid asthma, the paroxysm is gradual and protracted; the constriction of the chest is heavy and laborous; the cough severe, and more or less constant; the expectoration commencing early, soon becoming copious, and affording great relief.

The spasmodic asthma is comparatively a rare disease, not one case occurring for, perhaps, fifty cases of habitual asthma.

On the evening preceding an attack of asthma, the spirits are often much affected, and the per-

son experiences a sense of fulness about the stomach, with lassitude, drowsiness, and a pain in the head. On the approach of the succeeding evening he perceives a sense of tightness and stricture across the breast, and a feeling of straitness in the lungs impeding respiration. The difficulty of breathing continuing to increase for some length of time, both inspiration and exspiration are performed slowly, and with a wheezing noise; the speech becomes difficult and uneasy, a propensity to coughing succeeds; and the patient can no longer remain in a horizontal position, being as it were threatened with immediate suffocation.

These symptoms usually continue till towards the approach of morning, and then a remission commonly takes place, the breathing becomes less laborious and more full, and the person speaks and coughs with greater ease. If the cough be attended with a free expectoration of mucus, he experiences much relief, and soon falls asleep.

When he awakes in the morning he still feels some degree of tightness across his breast, although his breathing is probably more free and easy, and he cannot bear the least motion without rendering this more difficult and uneasy, neither can he continue in bed, unless his head and shoulders be raised to a considerable height.

Towards evening he again becomes drowsy, is much troubled with flatulency in the stomach,

and perceives a return of the difficulty of breathing, which continues to increase gradually till it becomes as violent as on the night before.

After some nights passed in this way, the fits at length moderate, and suffer more considerable remissions, particularly when they are attended by a copious expectoration in the mornings, and that this continues from time to time throughout the day; and the disease going off at last, the patient enjoys his usual rest by night without further disturbance.

During the fits the pulse is not usually much affected, but in a few cases there is a frequency of it, with some degree of thirst, and other febrile symptoms. In some persons, the face becomes turgid and flushed during the continuance of the fit, but more commonly it is pale and shrunk. Urine, voided at the beginning of a fit, is generally in considerable quantity, and with little colour or odour; but, after the fit is over, what is voided is in the ordinary quantity, of a high colour, and sometimes deposits a sediment.

The exciting causes of asthma are numerous, and among the chief of them we may reckon hereditary predisposition, cold and moist atmosphere, sudden changes of temperature, removal from a healthy spot in the country to a crowded and populous city, suppression of long-accustomed evacuations, mechanical constriction of the chest. Yet all these may be resolved into an irritation of some kind or other, existing

within the cavity of the chest, and stimulating its moving powers to a convulsive restriction; or, to speak with still more precision, in all cases the exciting cause is an irritant of some kind or other, acting on the too sensible membrane of the bronchia. In such instances, the asthma is a primary affection originating in the chest; but it is worthy of the most accurate remark, that this disease very frequently occurs secondarily, and as a mere symptom or result of some other complaint, or of a diseased state of some remote organ, as the stomach, bowels, or liver, when it is only to be removed by removing the disorder on which it is dependent. Hence, it is of the utmost importance that we should trace out the actual cause, so as to determine whether it has its seat within the chest, or in a more remote part.

The asthmatic attack itself seems to be the immediate consequence of a spasmodic affection of the minute bronchia; that is, the minute terminations of the windpipe. These terminations, though minute, are possessed of a set of completely circular muscular fibres, and it is very conceivable that the spasmodic contraction of these fibres may be carried so far, as to obstruct the air-passages to such a degree as to prevent the transmission of air to a great portion of the lungs.

Asthma, but more particularly the spasmodic, is brought on by almost every thing which increases the action of the heart, and which stimu-

lates and fills the vessels of the mucous membrane. Thus it is produced by intense heat, by lightness of air, by severe exercise, by strong mental emotions, by full meals, by stimulating drinks, by exposure to cold and atmospherical influence, and by certain effluvia, as those of hay, whether new or old, of sealing wax, and other burning substances.

Asthma may be distinguished from inflammation of the lungs and pleurisy, by being *chronic*, unattended with *acute* pain or *stitches* in the chest, and being free from fever. The returning of the paroxysms *at intervals*, the sense of constriction about the chest, occasioning the patient to get into an erect posture, and to fly for relief to the cold air, will distinguish asthma from other diseases of the lungs.

INHALING FOR ASTHMA.

For this complaint, whether in the dry or humid species, any one of the iodine formulæ, given in pages 28 and 30 of this Treatise, may be beneficially employed, with or without the tincture of hemlock, or inspissated juice of belladonna; adding either of these if the cough is very irritable, but otherwise omitting it.

Asthmatic patients should inhale at first rising in the morning, even before quitting the bed, in order to obtain a facility of expectorating the

secretion which collects during the night, without the usual distressing paroxysms of cough.

The anodyne inhaling mixture, in page 37, is adapted to all cases of asthma. It is very soothing, and calculated to overcome excessive irritation and cough.

The inhaling mixture of lobelia inflata and other articles, in page 42, is particularly applicable to asthmatic cases; also the simple herb, in the following manner:—

Take of

The leaves of lobelia inflata ..	1 ounce or	1½ ounce.
Warm water (not boiling)		1 pint.

Mix for an inhaling dose, three times a day. A large inhaler must be used.

The formula for belladonna, balsam of tolu, and æther, in page 43, is also for asthma.

The inhalation of hops, as in page 50, gives often the most sensible relief in this complaint; or used in the form of extract, as follows:—

Take of

The extract of hops	½ an ounce.
Boiling water	1 pint.

Pour the water on the extract in the inhaler, and receive the vapour immediately. To be employed four or five times a day, for a few minutes each time.

The above is one dose. It may be adopted when inflammatory symptoms are present, to subdue them.

The Iceland, Ceylon, or Irish mosses, in page 53, are all highly beneficial in asthma. Likewise the red cabbage and honey, in page 54.

ÆTHER, IPECACUANHA, AND HEMLOCK, OR BELLADONNA.

(No. 1.)
Take of
Inspissated juice of belladonna, from 1 to 1½ drachm.
Or
Saturated tincture of hemlock 1 ounce.
Saturated tincture of ipecacuanha .. ½ an ounce.
Rose water.. 6 ounces.
Mix together.

(No. 2.)
Take of
Sulphuric æther 2 ounces.

Put into the inhaler three teaspoonfuls of No. 1, and half a teaspoonful of No. 2, and inhale for eight or ten minutes; then add one or two teaspoonfuls more of No. 1, and half a teaspoonful of No. 2, and inhale for the same time longer.

It may be used three times a day, and the last time should be just before going to bed. It will cause expectoration to take place comparatively without effort, when it occurs during the night, and free from that feeling of oppression and difficulty of breathing which to such invalids are so

distressing. Sleep also will be more speedily obtained after expectoration; whereas, whenever asthmatic persons awake with a sensation of tightness across the chest, they do not sleep for hours afterwards.

ÆTHER, IPECACUANHA, AND BALSAM OF TOLU.

(No. 1.)
Take of
Tincture of ipecacuanha.. ½ an ounce.
Tincture of balsam of tolu 6 ounces.
Mix together.

(No. 2.)
Take of
Sulphuric æther 2 ounces.

The doses to be used, and the number of times, are exactly like the last.

This mixture will also powerfully remove the difficulty of breathing, and dislodge the accumulated matter with the same facility as the preceding.

The inhalation of æther alone will sometimes give great relief during the paroxysm, and may be done in a common teapot, thus:—Heat a teapot with boiling water, pour the water quite off, and put a teaspoonful or two of pure sulphuric æther into the pot. Shut the lid down close, and let the patient inhale the fumes by putting the spout into his mouth, and breathing in that way several minutes. It may be repeated frequently, if it agrees, and the severity of the disease makes it desirable. It abates the hectic

fever, checks the night sweats in consumption, and greatly improves the smell, colour, and qualities of the expectorated matter, as stated in page 117.

BALSAM OF TOLU.

Take of

Balsam of tolu	½ an ounce.
Boiling water	1 pint.

Pour the water on the balsam in the inhaler, and receive the vapour immediately. This is one dose, and it may be employed four or five times a day, for a few minutes each time.

This is a stimulating expectorant, and although less heating than the other balsams (for it is the mildest of all), should not be employed when any inflammation is present in the respiratory organs.

STRAMONIUM.

Take of

The leaves of stramonium	1 ounce.
Water	1 pint.

Mix in a close vessel, and set it on the fire. As soon as it begins to boil take it off, and let it be immediately inhaled by the asthmatic patient. Long boiling dissipates its virtues.

The above is for one sitting, which may continue ten or fifteen minutes. To be done three times a day.

Some patients derive extreme benefit from this.

CAMPHOR.

Take of

Powdered camphor	½ an ounce.
Boiling water	1 pint.

Pour the water on the camphor, and receive the vapour immediately, as with the balsam of tolu.

It may be frequently employed during the day, in the above dose. It is applicable to every stage of the disease, and affords great relief.

IPECACUANHA IN POWDER.

Take of

Powdered ipecacuanha.. ..	from 10 to 30 grains.
Boiling water	1 pint.

Infuse for ten minutes, pour it into the inhaler, and receive the vapour.

Employ it three or four times a day, in the above quantity.

It is often very effectual.

IPECACUANHA WINE.

Take of

Ipecacuanha wine	from 10 to 30 minims.
Boiling water	1 pint.

For one dose; to be poured into the inhaler. Employ it three or four times a day.

In the above quantity it operates as a beneficial expectorant; but when there is great obstruction in the bronchial tubes, from an accumulation of phlegm, it is desirable to have it act as an emetic. It will then require from six to twelve drachms of the wine to a pint of water.

A great advantage is thus gained by producing an emetic effect without taking it into the stomach; for, as Dr. Maddock says, it does not, by inhalation, cause that prostration of strength and disturbance of the system which usually follow from taking it by the stomach; and, at the same time, it exerts a peculiarly beneficial topical effect. We have the opportunity, moreover, of exhibiting simultaneously such remedies as are calculated to improve the impaired state of the general health.

INHALATION OF THE GUMS.

Take of
Gum galbanum, or
Gum ammoniacum from ½ to 1½ drachm.

Rub them down in water with a little powdered gum arabic or starch. Put the mixture into the inhaler, pour on it a pint of hot water, and inhale it immediately. It must be made as wanted.

It will soften the cough, and, by its stimulating effects, enable the patient to expectorate with ease and freedom.

INTERNAL TREATMENT.

As internal medicine taken into the stomach there is nothing at all to be compared to the lobelia inflata. The two forms given in page 140 of this book, when speaking of that plant, are very excellent, and generally afford astonishing relief.

The following are also very efficacious mixtures :—

Take of

Æthereal tincture of lobelia inflata	.. 5 drachms.
Mixture of camphor	.. ½ a pint.

Mix, and take two tablespoonfuls two, three, or four times a day.

This is valuable when the complaint is attended with much flatulence, oppression of the chest, and great susceptibility of the nervous system.

Take of

Ipecacuanha wine	.. 4 drachms.
Tincture of lobelia inflata ..	.. 3 drachms.
Extract of henbane	.. ½ a drachm.
Compound spirit of sulphuric æther	.. 4 drachms.

Camphor mixture, to make up 8 ounces, that is ½ a pint.

Mix, and take two tablespoonfuls twice a day.

A dose is to be taken at the approach of a paroxysm, and it will in all probability prevent its taking place. Also, if it can be swallowed during the paroxysm, it will succeed in terminating the same more speedily.

Take of

Tincture of lobelia inflata..	..from 2 to 4 drachms.
Powdered valerian..	2 or 3 drachms.
Cinnamon water ..	to make it up 8 ounces.

Mix together, and take two table spoonfuls two or three times a day. It must be well shaken up each time.

When high arterial action is the result of debility, the effect of this mixture is very marked in lowering the state of the pulse.

The valerian should be powdered fresh when wanted, for if kept long in a pulverized state it becomes quite inert and useless. The root ought to be good.

Take of

Cayenne pepper ..	from ½ a drachm to 1 drachm.
Powdered turmeric ..	 2 drachms.
Tincture of myrrh ..	from ½ an ounce to 1 ounce.
Infusion of hoarhound	 1 pint.

Mix, and take two table spoonfuls three or four times a day, shaking it up well each time. This is nearly the same as in page 150.

The infusion of hoarhound ought to be of a good strength, thus: pour a pint of boiling water on two ounces of the leaves; infuse for two hours, strain it, and then add the other articles.

To those who rest on theory alone without practice, this may appear a powerful mixture and unsuited to asthmatic patients, but very few remedies will give greater relief than this; cayenne pepper being a pure and healthy stimulant to the whole system. It is certainly very pungent, but

the burning sensation in the mouth continues for a short time only, whereas its stimulating properties do not pass off with this sensation, but act most beneficially in sustaining the natural heat of the system, on which the whole of life and health depends, and thus communicating that grateful glow which is so agreeable to persons labouring under asthma, and the want of which is so feelingly complained of. In short, this mixture is safe and efficacious in all cases, but particularly when the extremities are cold, the pulse feeble, and the general vital powers depressed.

Turmeric has for years past been almost out of date as an internal medicine in this country, being used chiefly for dyeing, and as a chemical test for some processes; but its effects require only to be witnessed to establish it again as one of our most valuable therapeutic agents. It belongs to the same natural order of plants as ginger.

But I think nothing in the whole range of medicine is superior to the mixture of coltsfoot, hoarhound, lesser centaury, common germander, and liquorice, given in page 72; adding to each dose half a teaspoonful of tincture of lobelia inflata, or putting into the whole mixture five teaspoonfuls at once, at the time of making. The dose, of course, to be as there stated, a teacup full three times a day.

It may infuse for a day or two before straining, instead of two hours, as there mentioned.

When the patient is much debilitated, and dropsical symptoms prevail, such as swelling of the legs, great oppression at the chest, and bloated countenance, a powerful tonic will be required, and it must be combined with a diuretic medicine, such as the following:

Take of

Carbonate of ammonia (now called the sesquicarbonate)	2 scruples.
Compound spirit of juniper	2 ounces.
Tincture of squill	½ an ounce.
Infusion of rhatany root	6 ounces.

Mix together, and take three tablespoonfuls every four hours with two of the following pills:

Take of

Subcarbonate of iron (now called the sesquioxide)	24 grains.
Extract of hemlock..	36 grains.
Powdered gum ammoniac..	48 grains.
Oil of aniseed	16 minims.

Mix well, and form the mass into 24 pills; two to be taken every four hours, with three tablespoonfuls of the above mixture.

If the bowels are costive when taking the preceding remedies, a gentle aperient must be given to keep them open and regular. Several of this kind will be found in former pages of this work.

In this stage of the malady it is of the greatest consequence to keep up the action of the kidneys, and this intention may be promoted by drinking freely of a decoction of common broom tops, made as follows:—Put an ounce of the dried tops to a

pint of water, and boil down to half a pint. Take two or three tablespoonfuls every hour till it operates by stool.

In all cases of asthma much comfort and benefit will be derived from wearing constantly a galbanum plaster along the spine, exactly in the same manner as directed under the head of night perspirations, in page 122, and I advise none to neglect it. Also when the extremities feel cold in bed, the patient ought never to sleep without putting a bottle of hot water to the feet, having previously wrapped it round with a cloth soaked in warm vinegar and water, as detailed in the chapter on bleeding. It will impart to the feelings the greatest delight possible, and exert a very favourable influence on the general disease.

The following additional observations are deserving of great attention from asthmatics:—

In every stage of asthma, in weakly subjects, the diet should consist chiefly of animal food: the only vegetable matter that seems to agree here is bread and the mealy potatoe. The flesh of young animals is the easiest of digestion, in the dressing of which the patient may be directed by his own taste: in general, meat under-done agrees

best with the stomach. The outside of roasted meat generally disorders the stomachs of asthmatics.

In respect to beverage, water is of all others the best; and should an aromatic be necessary, a little Jamaica ginger, finely ground, is preferable to any other, which may be taken in it. This will be sufficient to correct flatulence; and the system will not be disturbed by the pure element as by wine or brandy. In the far advanced stage, a cordial beverage is, however, frequently necessary; in which case gin or brandy, diluted with water, is the best.

For breakfast and tea, a mixture of some of our more fragrant British herbs, as rosemary, balm, thyme, hyssop, and some others, in proper proportions, is the best beverage that can be employed, as they agree, *when properly dried, and judiciously mixed*, with every stomach, are a powerful preventive of flatulence, and promote digestion better than any foreign tea, coffee, chocolate, or cocoa.*

The quality of the air is of the greatest importance to asthmatic patients; and the peculiarity

* A composition of this sort, all the articles of which are calculated to give tone to the stomach, benefit the lungs, and invigorate the nervous system, is sold, wholesale and retail, by Mr. Hobday, druggist, Summer-lane, Birmingham, who calls it "Herb Mixture for Breakfast and Tea." It is very grateful to the taste, and is much cheaper than common tea. Directions for its use accompany each packet. It is also adapted to consumptive individuals, in every stage of the disease; for all the articles of which it is composed enjoy the confidence of the profession for their efficiency in all pulmonary complaints.

of temperaments and habits often requires an opposite regulation in this respect. To some, the application of cold fresh air, during the paroxysm, is absolutely necessary; while the feelings of others are best relieved by a situation near the fire-side: but in all asthmatic cases, it is necessary that the patient should be protected from an easterly wind. In general, too light air disagrees with patients under this disease: hence elevated situations are found hurtful. But such is the variable nature of the malady, that some cannot breathe in a light air, while others feel equal inconvenience in a condensed atmosphere. An uniform pure air is required by some, while the air mixed with the carbonic acid gas from a lime-kiln, or from burning coke, is more grateful to others. Some again are greatly relieved by being placed near a fire of coal or wood, and experience a sensation of suffocation when coke is used in lieu of coal or wood. The sea-air is often prejudicial, even independent of its temperature.

Walking and sailing have been much recommended as exercise; riding on horseback is, perhaps, most salutary, as the viscera are exercised by it, and the nervous system quieted by the pleasant occupation of the mind in managing or guiding the horse, &c.

Issues have been recommended by some practitioners for lessening the frequency and violence of the paroxysms. It is said that King William III. continued perfectly free from his asthmatic

complaint, during the whole of the time that the wound he received on his shoulder, in the battle of the Boyne, kept open and discharged matter.

The application of galvanism has been found, in some instances, a sovereign remedy for this complaint, but it is necessary to be administered by a skilful practitioner, and on that account so few can enjoy the opportunity of receiving the benefits to be derived from it. Greater attention ought undoubtedly to be paid to so valuable an agent in the cure of disease—but it is useless, on the present occasion, to do more than mention the existence of the remedy, that those may employ it who can command the leisure and the means.

A series of questions on consumption and asthma, which will enable patients, who are desirous of consulting a physician, to state their symptoms clearly, either personally or by letter. As no individual will have all the symptoms here implied, each patient must make use of those questions which he finds applicable to himself:*

What is your age?

How long have you been affected?

To what kind of diet have you been accustomed?

* The only difficulty that can occur to patients is, to know which remedies are adapted to their case when many symptoms are upon them at the same time, for they may seem to require medicines that are opposite in their tendency, and would counteract each other's effects. Under these circumstances, there may be a doubt which to choose, and it may sometimes be necessary to seek the aid of a skilful practitioner. With this view, therefore, the above questions are introduced.

What is the nature of your employment, and your gen ral mode of life ?

Do you live in a healthy locality, or otherwise ?

Do you keep late hours, and are you much in rooms that are lighted with gas ?

Do you play on any wind instrument ?

Are the bowels regular, costive, or relaxed ?

Of what appearance and consistence are the stools ?

Have you any pain or tenderness in the abdomen, that is, the belly ?

Any pain in either side, or between the shoulder-blades ?

When you make a deep inspiration, or, in other words, draw in a very full breath, does it excite cough or pain in any part ?

Have you much cough ? Is it moist or dry, and is it very irritating and constant ?

Do you expectorate much matter, and what colour and appearance has it ?

Does it taste sweet, saltish, or offensive, in the mouth ?

Does it sink in water ?

Did you ever spit blood, or do you now, and in what quantities ?

Have you ever been subject to the bleeding piles, or great perspirations in the feet ?

Have you much oppression at the chest, and difficulty of breathing ?

Have you any palpitation, heat, or pain about the region of the heart ?

Are you much troubled with flatulence or wind, either i t stomach or bowels ?

Does the urine deposit a sediment at the bottom and sides of the utensil ? If so, is it red, like brick-dust ; or brown ; or of a pink colour ? Or is it a sort of whitish matter, offensive to the smell ?

Is the urine in proper quantity, neither excessive nor deficient ?

Is your skin generally moist, soft, and pliable ; or dry and hot ?

Do you wear flannel next the skin, and how often do you change it

Do you sometimes bathe all over, and how often ? also, in warm or cold water ?

Are you affected with sudden variations of chill and heat?

Do you sleep well, and can you lie in bed equally well on both sides?

Is your tongue clean or furred? If the latter, of what colour?

Are you troubled with much thirst?

How is your appetite? Have you a disagreeable taste in the mouth, and do you feel a disposition to nausea or sickness, particularly after meals?

Do you waste much in flesh and strength?

Is your pulse weak, strong, quick, frequent, or intermittent?*

Have you any soreness in the throat?

Any headache? If so, is it partial, or general all over the head?

Have you ever been troubled with worms?

Do your eyes appear languid, with a livid hue around them?

Have you any perspirations in the night, or early in the morning? Are they general, or confined chiefly to the chest?

Any hectic fever? How often, and at what periods of the day does it come on?

Are the palms of the hands and the soles of the feet sometimes dry and hot?

Are your feet cold in bed?

Are the finger nails bent inwards?

* The following explanation will guide the patient:—A pulse may be *frequent* and yet not *quick*,—the word *quick* expressing *the celerity with which the artery contracts*, that is, *the pulsation* itself; and not applying to the *interval* of the pulsation, which is expressed by the term *frequent*. The contraction may be *quickly effected*, and the *interval* between each pulsation *long*; hence a *quick* pulse may also be *slow*, and a *frequent* pulse may not be *quick* as to the *manner of contraction*.

When the strokes do not follow the usual interval, and sometimes not till after twice, thrice, or four times the usual space, it is termed *intermittent*. This is common to some people even in a state of health, but generally arises from an unequal influx of the blood into the heart, and other various causes. In adults, in a state of health, the pulse beats from 65 to 75 or 80 times in a minute, the pulsations being at an equal distance from each other; but the natural pulse of some people does not exceed 35, 40, or 50. Napoleon's pulse was 54.

The pulse in health varies in the course of the day. In the morning it is slow; after a full meal it is quickened 10 or 12 strokes in a minute. Even during fever it varies much, according to the state of the skin. When the skin is dry, it is often 20 or 30 strokes more frequent than when it perspires freely. Position of body also makes some difference: in the erect posture it is more frequent than in the horizontal, by from 6 to 15 beats in the minute.

Does your hair fall off in unusual quantities from your head?
Have you any swelling in the feet, legs, hands, or face?
Have you ever been examined by the Stethescope, and, if so, what opinion was given?

If the patient be a female, the following questions must be particularly attended to:—

Has the monthly period been regular, and in proper state? If not, how long is it since it became disordered?
Is the patient pregnant, and how long has she been so?
Has she ever had any children? If so, what is the age of the youngest?
If an infant, does she nurse it herself? and how often?
Is she subject to hysterical fits, the whites, &c.?

A few words will suffice to answer any of the questions; and although they may appear numerous in the aggregate, yet, as they cannot all, or even the greater part of them, belong to one person, the trouble will be trifling; whereas, the knowledge which they will convey to the medical practitioner will be of the highest moment, and enable him to prescribe, with confidence, for the existing state of the disease.

POSTSCRIPT.

It was the author's intention, when he began to write this treatise, to have introduced a series of cases, of patients both at home and in various parts of England, taken indiscriminately from his prescription book; but this, he found, would have swelled the volume to a much greater size than he could have afforded for the price to which he had resolved to limit it. His chief object has been to insert as much practical information as possible, and to put it out at such a price as to place it within the reach of the millions. To accomplish this, he has been compelled to deviate, in some measure, from his original design; for, as he proceeded, the necessity of giving a detailed account of medicines and plans became more and more apparent, in order to leave nothing untold that could render the subject clear to the public, and enable them at all times, and in all places, to arrest the progress of the disease. He has, therefore, omitted the cases altogether, as being a matter of secondary importance, and devoted every page of the work to the developement of all those means

which his experience has shown him to be successful in every variety of the disease.

Moreover, had he given the cases, the names of the parties would, of course, not have been mentioned, as it would have been a breach of professional confidence; consequently, they could have been of no further interest than as confirming the treatment explained in the work.

Finis.

ERRATA.

Page 85, line 12, for "2 to 4 grains." read "2 to 4 drachms."
Ibid, line 13, for "potassum," read "potassium.'

NOTE.—During the time that these pages have been passing through the press, the author has had several cases terminate successfully in which no alcoholic beverages were used at all, the patients conscientiously refraining from them. He, therefore, feels inclined to modify his opinion expressed in page 156, and state his conviction that such beverages may be dispensed with altogether.

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